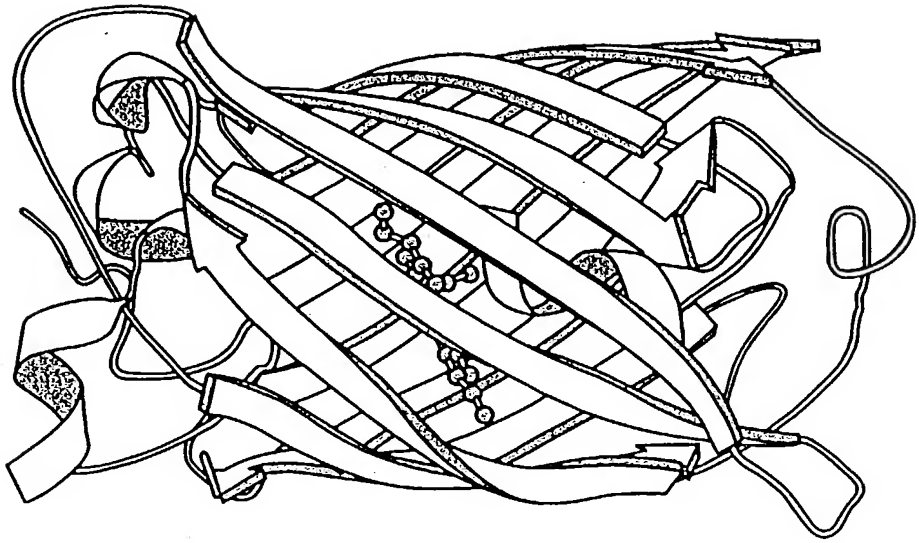


FIG. 1A

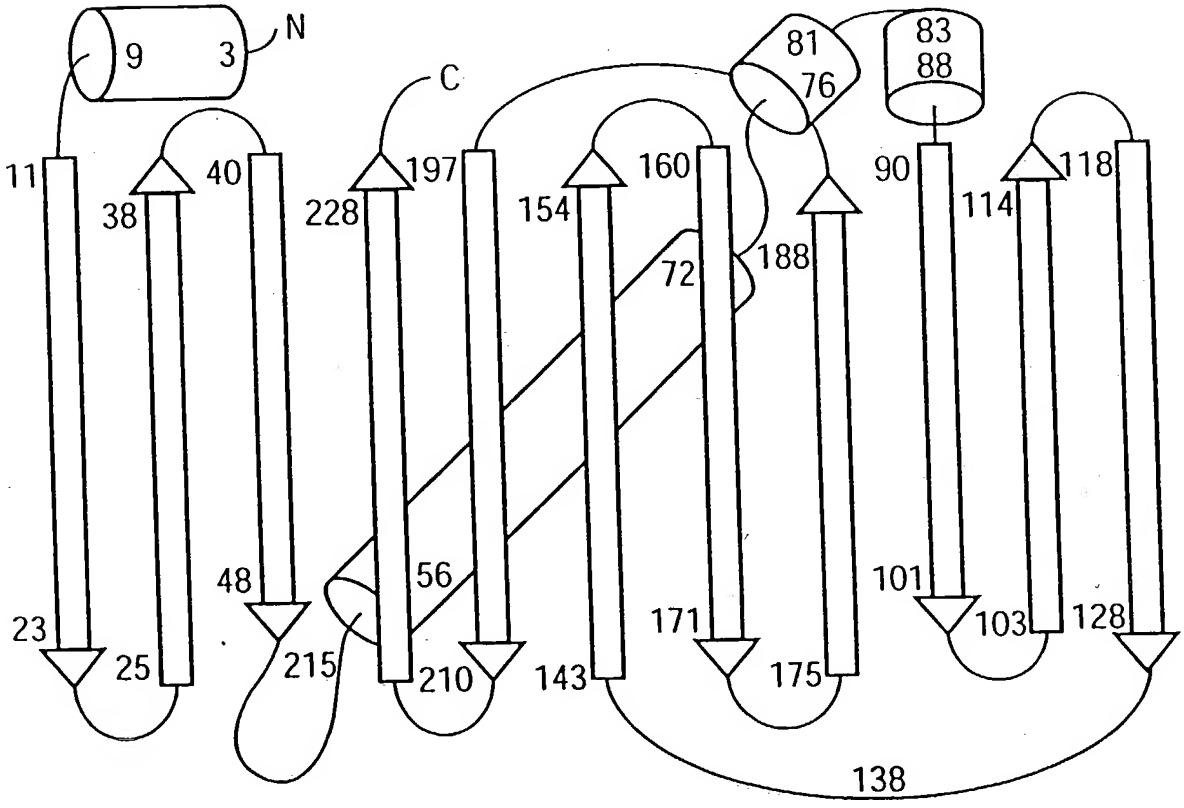
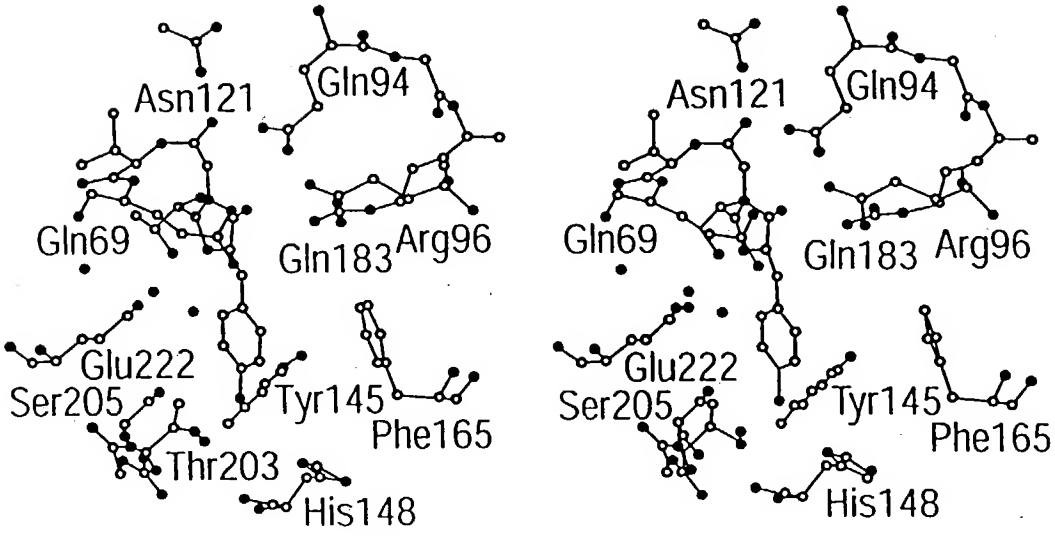

N
9
3
C
11
38
40
228
197
154
160
81
76
83
88
90
118
114
72
188
48
56
23
25
215
210
143
171
175
101
103
128
138

FIG. 1B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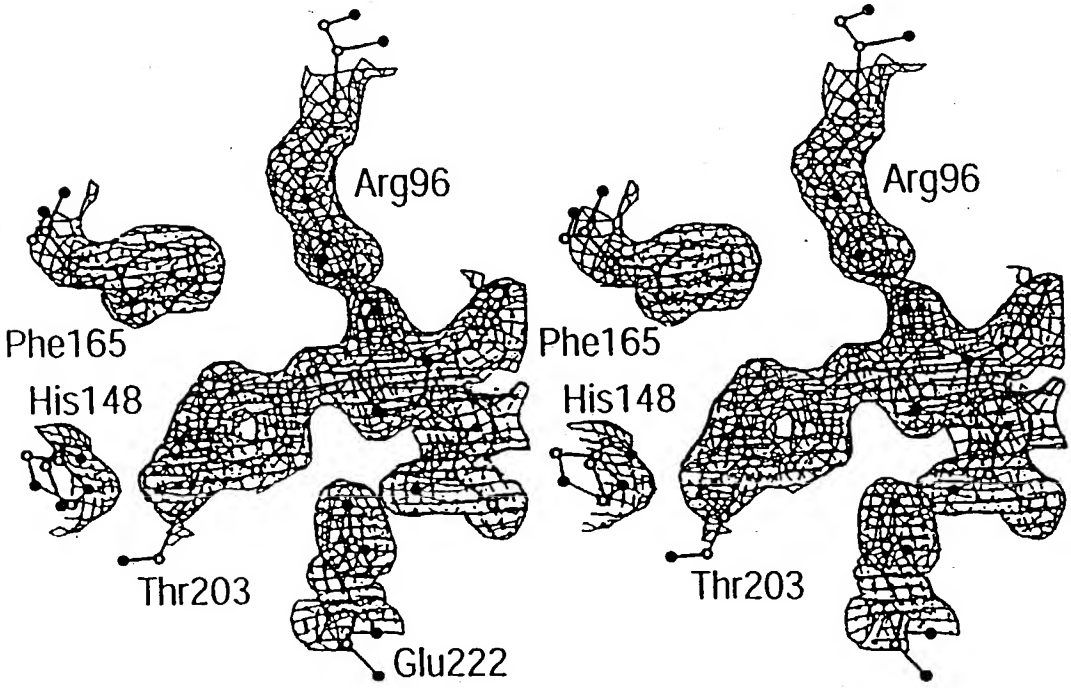
Gln94
Gln69
Gln183
Arg96
Glu222
Ser205
Tyr145
Phe165
Thr203
His148
Asn121
Gln94
Gln69
Gln183
Arg96
Glu222
Ser205
Tyr145
Phe165
His148

FIG. 2A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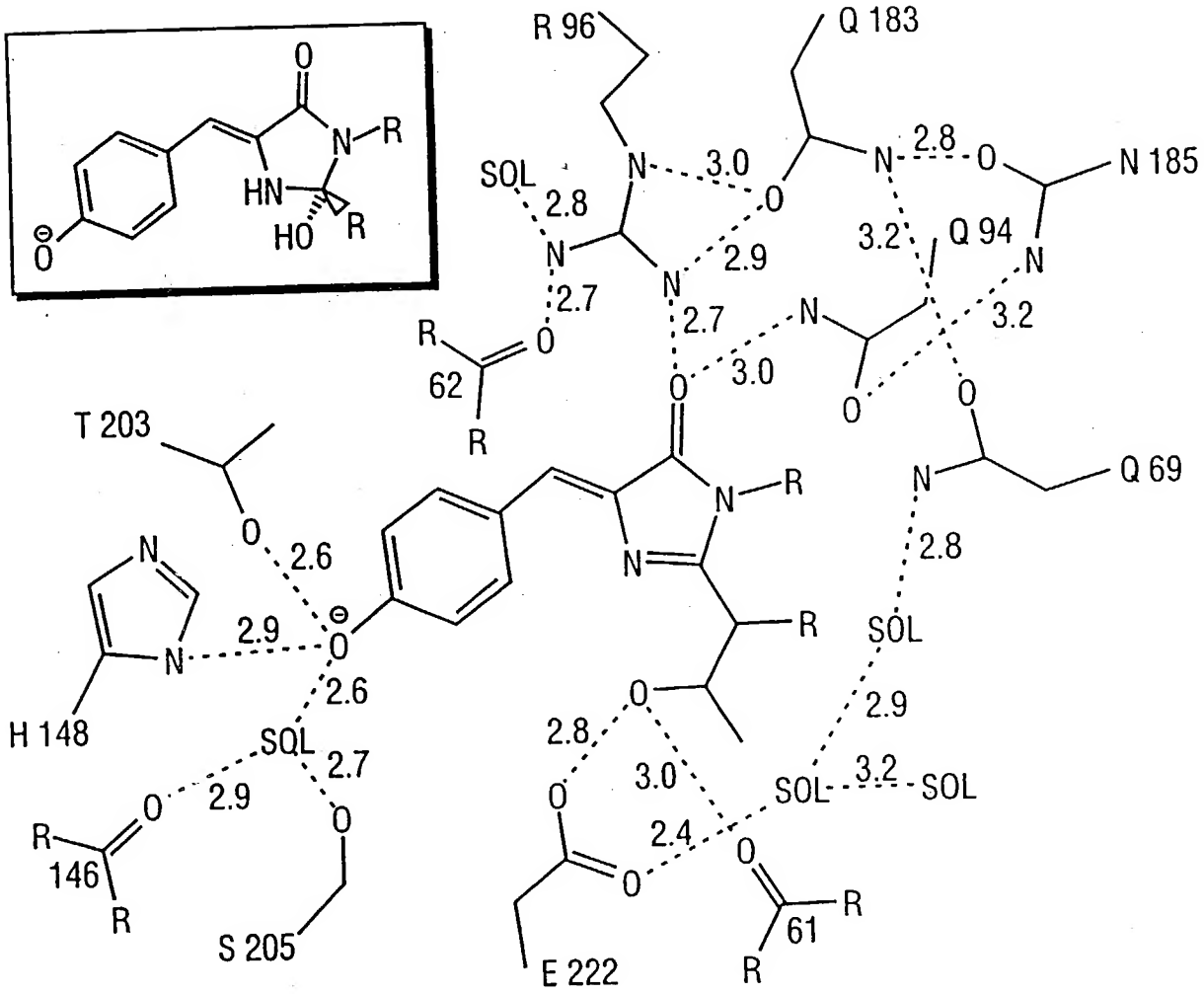
Phe165
His148
Thr203
Glu222
Arg96
Phe165
His148
Thr203

FIG. 2B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Q 183
SOL
2.8
3.0
2.8
N 185
3.2
Q 94
2.9
2.7
2.7
3.2
62
3.0
T 203
2.6
Q 69
2.8
2.9
H 148
2.6
SOL
2.7
2.9
2.8
3.0
3.2
SOL
SOL
2.4
146
S 205
61
E 222

FIG. 2C

(xi) SEQUENCE DESCRIPTION:

SEQ ID NO:1:

SEQ ID NO:2:

```
ATG AGT AAA GGA GAA GAA CTT TTC ACT GGA GTT GTC CCA ATT CTT GTT  48
Met Ser Lys Gly Glu Glu Leu Phe Thr Gly Val Val Pro Ile Leu Val
  1               5                  10                  15
GAA TTA GAT GGT GAT GTT AAT GGG CAC AAA TTT TCT GTC AGT GGA GAG  96
Glu Leu Asp Gly Asp Val Asn Gly His Lys Phe Ser Val Ser Gly Glu
            20                  25                  30
GGT GAA GGT GAT GCA ACA TAC GGA AAA CTT ACC CTT AAA TTT ATT TGC 144
Gly Glu Gly Asp Ala Thr Tyr Gly Lys Leu Thr Leu Lys Phe Ile Cys
        35                  40                  45
ACT ACT GGA AAA CTA CCT GTT CCA TGG CCA ACA CTT GTC ACT ACT TTC 192
Thr Thr Gly Lys Leu Pro Val Pro Trp Pro Thr Leu Val Thr Thr Phe
    50                  55                  60
TCT TAT GGT GTT CAA TGC TTT TCA AGA TAC CCA GAT CAT ATG AAA CGG 240
Ser Tyr Gly Val Gln Cys Phe Ser Arg Tyr Pro Asp His Met Lys Arg
65                  70                  75                  80
CAT GAC TTT TTC AAG AGT GCC ATG CCC GAA GGT TAT GTA CAG GAA AGA 288
His Asp Phe Phe Lys Ser Ala Met Pro Glu Gly Tyr Val Gln Glu Arg
                85                  90                  95
ACT ATA TTT TTC AAA GAT GAC GGG AAC TAC AAG ACA CGT GCT GAA GTC 336
Thr Ile Phe Phe Lys Asp Asp Gly Asn Tyr Lys Thr Arg Ala Glu Val
            100                 105                 110
AAG TTT GAA GGT GAT ACC CTT GTT AAT AGA ATC GAG TTA AAA GGT ATT 384
Lys Phe Glu Gly Asp Thr Leu Val Asn Arg Ile Glu Leu Lys Gly Ile
        115                 120                 125
GAT TTT AAA GAA GAT GGA AAC ATT CTT GGA CAC AAA TTG GAA TAC AAC 432
Asp Phe Lys Glu Asp Gly Asn Ile Leu Gly His Lys Leu Glu Tyr Asn
    130                 135                 140
TAT AAC TCA CAC AAT GTA TAC ATC ATG GCA GAC AAA CAA AAG AAT GGA 480
Tyr Asn Ser His Asn Val Tyr Ile Met Ala Asp Lys Gln Lys Asn Gly
145                 150                 155                 160
ATC AAA GTT AAC TTC AAA ATT AGA CAC AAC ATT GAA GAT GGA AGC GTT 528
Ile Lys Val Asn Phe Lys Ile Arg His Asn Ile Glu Asp Gly Ser Val
                165                 170                 175
CAA CTA GCA GAC CAT TAT CAA CAA AAT ACT CCA ATT GGC GAT GGC CCT 576
Gln Leu Ala Asp His Tyr Gln Gln Asn Thr Pro Ile Gly Asp Gly Pro
            180                 185                 190
GTC CTT TTA CCA GAC AAC CAT TAC CTG TCC ACA CAA TCT GCC CTT TCG 624
Val Leu Leu Pro Asp Asn His Tyr Leu Ser Thr Gln Ser Ala Leu Ser
        195                 200                 205
AAA GAT CCC AAC GAA AAG AGA GAC CAC ATG GTC CTT CTT GAG TTT GTA 672
Lys Asp Pro Asn Glu Lys Arg Asp His Met Val Leu Leu Glu Phe Val
    210                 215                 220
ACA GCT GCT GGG ATT ACA CAT GGC ATG GAT GAA CTA TAC AAA TA      717
Thr Ala Ala Gly Ile Thr His Gly Met Asp Glu Leu Tyr Lys
225                 230                 235
```

FIG. 3

T203Y, S65G, S72A humanized codon usage, with an additional amino acid ater the start met to provide optimal kozak sequence

```
          9          18          27          36          45          54
ATG GTG AGC AAG GGC GAG GAG CTG TTC ACC GGG GTG GTG CCC ATC CTG GTC GAG
--- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---
Met Val Ser Lys Gly Glu Glu Leu Phe Thr Gly Val Val Pro Ile Leu Val Glu

          63          72          81          90          99         108
CTG GAC GGC GAC GTA AAC GGC CAC AAG TTC AGC GTG TCC GGC GAG GGC GAG GGC
--- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---
Leu Asp Gly Asp Val Asn Gly His Lys Phe Ser Val Ser Gly Glu Gly Glu Gly

         117         126         135         144         153         162
GAT GCC ACC TAC GGC AAG CTG ACC CTG AAG TTC ATC TGC ACC ACC GGC AAG CTG
--- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---
Asp Ala Thr Tyr Gly Lys Leu Thr Leu Lys Phe Ile Cys Thr Thr Gly Lys Leu

         171         180         189         198         207         216
CCC GTG CCC TGG CCC ACC CTC GTG ACC ACC TTC GGC TAC GGC GTG CAG TGC TTC
--- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---
Pro Val Pro Trp Pro Thr Leu Val Thr Thr Phe Gly Tyr Gly Val Gln Cys Phe

         225         234         243         252         261         270
GCC CGC TAC CCC GAC CAC ATG AAG CAG CAC GAC TTC TTC AAG TCC GCC ATG CCC
--- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---
Ala Arg Tyr Pro Asp His Met Lys Gln His Asp Phe Phe Lys Ser Ala Met Pro

         279         288         297         306         315         324
GAA GGC TAC GTC CAG GAG CGC ACC ATC TTC TTC AAG GAC GAC GGC AAC TAC AAG
--- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---
Glu Gly Tyr Val Gln Glu Arg Thr Ile Phe Phe Lys Asp Asp Gly Asn Tyr Lys

         333         342         351         360         369         378
ACC CGC GCC GAG GTG AAG TTC GAG GGC GAC ACC CTG GTG AAC CGC ATC GAG CTG
--- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---
Thr Arg Ala Glu Val Lys Phe Glu Gly Asp Thr Leu Val Asn Arg Ile Glu Leu

         387         396         405         414         423         432
AAG GGC ATC GAC TTC AAG GAG GAC GGC AAC ATC CTG GGG CAC AAG CTG GAG TAC
--- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---
Lys Gly Ile Asp Phe Lys Glu Asp Gly Asn Ile Leu Gly His Lys Leu Glu Tyr

         441         450         459         468         477         486
AAC TAC AAC AGC CAC AAC GTC TAT ATC ATG GCC GAC AAG CAG AAG AAC GGC ATC
--- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---
Asn Tyr Asn Ser His Asn Val Tyr Ile Met Ala Asp Lys Gln Lys Asn Gly Ile
```

FIG. 4A

```
        495         504         513         522         531         540
AAG GTG AAC TTC AAG ATC CGC CAC AAC ATC GAG GAC GGC AGC GTG CAG CTC GCC
--- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---
Lys Val Asn Phe Lys Ile Arg His Asn Ile Glu Asp Gly Ser Val Gln Leu Ala

        549         558         567         576         585         594
GAC CAC TAC CAG CAG AAC ACC CCC ATC GGC GAC GGC CCC GTG CTG CTG CCC GAC
--- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---
Asp His Tyr Gln Gln Asn Thr Pro Ile Gly Asp Gly Pro Val Leu Leu Pro Asp

        603         612         621         630         639         648
AAC CAC TAC CTG AGC TAC CAG TCC GCC CTG AGC AAA GAC CCC AAC GAG AAG CGC
--- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---
Asn His Tyr Leu Ser Tyr Gln Ser Ala Leu Ser Lys Asp Pro Asn Glu Lys Arg

        657         666         675         684         693         702
GAT CAC ATG GTC CTG CTG GAG TTC GTG ACC GCC GCC GGG ATC ACT CAC GGC ATG
--- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---
Asp His Met Val Leu Leu Glu Phe Val Thr Ala Ala Gly Ile Thr His Gly Met

                711
GAC GAG CTG TAC AAG TAA 3'
--- --- --- --- --- ---
Asp Glu Leu Tyr Lys ***
```

FIG. 4B

```
CRYST1   51.767   62.845   70.666  90.00   90.00   90.00
ORIGX1      1.000000  0.000000  0.000000        0.000000
ORIGX2      0.000000  1.000000  0.000000        0.000000
ORIGX3      0.000000  0.000000  1.000000        0.000000
SCALE1      0.019317  0.000000  0.000000        0.000000
SCALE2      0.000000  0.015912  0.000000        0.000000
SCALE3      0.000000  0.000000  0.014151        0.000000
ATOM      1  N   SER     2      28.888   9.409  52.301  1.00 85.05
ATOM      2  CA  SER     2      27.638  10.125  52.516  1.00 80.05
ATOM      3  C   SER     2      26.499   9.639  51.644  1.00 85.36
ATOM      4  O   SER     2      26.606   8.656  50.915  1.00 84.56
ATOM      5  CB  SER     2      27.783  11.635  52.378  1.00 70.97
ATOM      6  OG  SER     2      27.690  12.033  51.012  1.00 44.08
ATOM      7  N   LYS     3      25.418  10.403  51.731  1.00 87.71
ATOM      8  CA  LYS     3      24.141  10.191  51.036  1.00 87.15
ATOM      9  C   LYS     3      24.214  10.266  49.497  1.00 76.86
ATOM     10  O   LYS     3      24.107   9.258  48.774  1.00 78.27
ATOM     11  CB  LYS     3      23.127  11.240  51.521  1.00 89.44
ATOM     12  CG  LYS     3      21.768  10.697  51.949  1.00 75.06
ATOM     13  CD  LYS     3      20.681  11.781  51.987  1.00 76.58
ATOM     14  CE  LYS     3      20.711  12.655  53.243  1.00 68.55
ATOM     15  NZ  LYS     3      20.816  14.103  52.953  1.00 46.24
ATOM     16  N   GLY     4      24.318  11.495  49.015  1.00 53.62
ATOM     17  CA  GLY     4      24.297  11.798  47.605  1.00 45.97
ATOM     18  C   GLY     4      25.425  11.206  46.796  1.00 31.90
ATOM     19  O   GLY     4      25.234  10.923  45.619  1.00 33.63
ATOM     20  N   GLU     5      26.606  11.082  47.420  1.00 32.54
ATOM     21  CA  GLU     5      27.821  10.598  46.726  1.00 32.57
ATOM     22  C   GLU     5      27.523   9.590  45.616  1.00 28.40
ATOM     23  O   GLU     5      27.850   9.803  44.444  1.00 26.12
ATOM     24  CB  GLU     5      28.873  10.053  47.718  1.00 38.53
ATOM     25  CG  GLU     5      30.337  10.461  47.425  1.00 41.36
ATOM     26  CD  GLU     5      31.311   9.584  48.170  1.00 90.82
ATOM     27  OE1 GLU     5      31.508   9.677  49.381  1.00 74.80
ATOM     28  OE2 GLU     5      31.839   8.653  47.403  1.00100.00
ATOM     29  N   GLU     6      26.883   8.499  46.017  1.00 28.57
ATOM     30  CA  GLU     6      26.479   7.410  45.150  1.00 31.50
ATOM     31  C   GLU     6      25.561   7.837  43.979  1.00 31.10
ATOM     32  O   GLU     6      25.479   7.142  42.955  1.00 30.96
ATOM     33  CB  GLU     6      25.780   6.330  45.992  1.00 35.64
ATOM     34  CG  GLU     6      25.260   6.893  47.338  1.00 55.53
ATOM     35  N   LEU     7      24.864   8.966  44.138  1.00 22.26
```

FIG. 5-1

ATOM	36	CA	LEU	7	23.954	9.456	43.089	1.00 21.61
ATOM	37	C	LEU	7	24.693	10.061	41.917	1.00 16.90
ATOM	38	O	LEU	7	24.152	10.250	40.836	1.00 18.38
ATOM	39	CB	LEU	7	23.050	10.548	43.665	1.00 22.41
ATOM	40	CG	LEU	7	21.672	10.058	44.098	1.00 32.84
ATOM	41	CD1	LEU	7	21.597	8.536	44.074	1.00 31.64
ATOM	42	CD2	LEU	7	21.332	10.591	45.485	1.00 33.14
ATOM	43	N	PHE	8	25.944	10.407	42.157	1.00 20.75
ATOM	44	CA	PHE	8	26.740	11.132	41.159	1.00 21.64
ATOM	45	C	PHE	8	27.818	10.333	40.427	1.00 30.59
ATOM	46	O	PHE	8	28.590	10.856	39.600	1.00 30.05
ATOM	47	CB	PHE	8	27.309	12.376	41.820	1.00 16.95
ATOM	48	CG	PHE	8	26.222	13.355	42.163	1.00 13.29
ATOM	49	CD1	PHE	8	25.672	13.378	43.447	1.00 17.27
ATOM	50	CD2	PHE	8	25.726	14.227	41.189	1.00 13.12
ATOM	51	CE1	PHE	8	24.661	14.290	43.772	1.00 15.14
ATOM	52	CE2	PHE	8	24.712	15.137	41.499	1.00 13.19
ATOM	53	CZ	PHE	8	24.192	15.170	42.794	1.00 5.69
ATOM	54	N	THR	9	27.798	9.074	40.699	1.00 27.35
ATOM	55	CA	THR	9	28.704	8.122	40.175	1.00 34.93
ATOM	56	C	THR	9	28.709	7.998	38.636	1.00 45.22
ATOM	57	O	THR	9	29.642	7.452	38.062	1.00 50.55
ATOM	58	CB	THR	9	28.447	6.795	40.892	1.00 44.60
ATOM	59	OG1	THR	9	29.629	6.330	41.527	1.00 40.40
ATOM	60	CG2	THR	9	27.801	5.779	39.959	1.00 29.76
ATOM	61	N	GLY	10	27.690	8.510	37.956	1.00 30.53
ATOM	62	CA	GLY	10	27.689	8.458	36.507	1.00 23.21
ATOM	63	C	GLY	10	27.144	9.746	35.914	1.00 16.55
ATOM	64	O	GLY	10		.729	36.617	1.00 25.70
ATOM	65	N	VAL	11	26.835	9.719	34.629	1.00 16.39
ATOM	66	CA	VAL	11	26.209	10.863	33.971	1.00 22.28
ATOM	67	C	VAL	11	24.758	11.020	34.479	1.00 29.60
ATOM	68	O	VAL	11	23.972	10.062	34.456	1.00 20.43
ATOM	69	CB	VAL	11	26.173	10.664	32.467	1.00 30.87
ATOM	70	CG1	VAL	11	25.912	11.980	31.734	1.00 31.75
ATOM	71	CG2	VAL	11	27.480	10.048	32.015	1.00 33.85
ATOM	72	N	VAL	12	24.417	12.227	34.931	1.00 20.12
ATOM	73	CA	VAL	12	23.080	12.561	35.433	1.00 12.88
ATOM	74	C	VAL	12	22.407	13.624	34.516	1.00 14.37
ATOM	75	O	VAL	12	23.007	14.639	34.179	1.00 13.42
ATOM	76	CB	VAL	12	23.270	13.077	36.839	1.00 15.01

FIG. 5-2

ATOM	77	CG1 VAL	12	22.000	13.662	37.422	1.00 17.57
ATOM	78	CG2 VAL	12	23.781	11.936	37.728	1.00 16.55
ATOM	79	N PRO	13	21.180	13.382	34.066	1.00 14.72
ATOM	80	CA PRO	13	20.493	14.382	33.265	1.00 10.76
ATOM	81	C PRO	13	20.116	15.589	34.141	1.00 7.65
ATOM	82	O PRO	13	19.797	15.468	35.337	1.00 15.14
ATOM	83	CB PRO	13	19.225	13.707	32.745	1.00 17.36
ATOM	84	CG PRO	13	19.043	12.422	33.550	1.00 19.69
ATOM	85	CD PRO	13	20.315	12.195	34.340	1.00 15.41
ATOM	86	N ILE	14	20.196	16.766	33.557	1.00 14.91
ATOM	87	CA ILE	14	19.893	17.991	34.266	1.00 12.93
ATOM	88	C ILE	14	18.768	18.760	33.596	1.00 12.08
ATOM	89	O ILE	14	18.724	18.878	32.399	1.00 11.04
ATOM	90	CB ILE	14	21.109	18.905	34.325	1.00 16.54
ATOM	91	CG1 ILE	14	22.271	18.169	35.015	1.00 18.08
ATOM	92	CG2 ILE	14	20.783	20.207	35.084	1.00 11.56
ATOM	93	CD1 ILE	14	23.642	18.836	34.738	1.00 16.15
ATOM	94	N LEU	15	17.899	19.307	34.421	1.00 13.85
ATOM	95	CA LEU	15	16.811	20.136	33.955	1.00 14.82
ATOM	96	C LEU	15	16.915	21.474	34.685	1.00 3.62
ATOM	97	O LEU	15	17.080	21.509	35.901	1.00 10.00
ATOM	98	CB LEU	15	15.462	19.450	34.285	1.00 21.25
ATOM	99	CG LEU	15	14.412	19.541	33.199	1.00 40.50
ATOM	100	CD1 LEU	15	13.279	20.440	33.679	1.00 46.97
ATOM	101	CD2 LEU	15	15.008	20.098	31.913	1.00 49.22
ATOM	102	N VAL	16	16.885	22.556	33.919	1.00 10.56
ATOM	103	CA VAL	16	16.964	23.905	34.479	1.00 10.23
ATOM	104	C VAL	16	15.716	24.727	34.063	1.00 9.47
ATOM	105	O VAL	16	15.347	24.748	32.904	1.00 16.72
ATOM	106	CB VAL	16	18.273	24.668	34.098	1.00 12.85
ATOM	107	CG1 VAL	16	18.226	26.075	34.691	1.00 12.58
ATOM	108	CG2 VAL	16	19.520	23.945	34.628	1.00 14.24
ATOM	109	N GLU	17	15.059	25.317	35.060	1.00 14.43
ATOM	110	CA GLU	17	13.904	26.144	34.870	1.00 13.61
ATOM	111	C GLU	17	14.086	27.474	35.571	1.00 9.38
ATOM	112	O GLU	17	14.331	27.524	36.765	1.00 15.74
ATOM	113	CB GLU	17	12.650	25.402	35.344	1.00 14.15
ATOM	114	CG GLU	17	12.436	24.178	34.447	1.00 15.37
ATOM	115	CD GLU	17	11.865	24.573	33.105	1.00 49.50
ATOM	116	OE1 GLU	17	11.160	25.557	32.950	1.00 83.46
ATOM	117	OE2 GLU	17	12.220	23.766	32.127	1.00 38.75

FIG. 5-3

ATOM	118	N	LEU	18	13.990	28.571	34.805	1.00 17.82
ATOM	119	CA	LEU	18	14.116	29.914	35.401	1.00 16.61
ATOM	120	C	LEU	18	12.962	30.855	35.057	1.00 14.91
ATOM	121	O	LEU	18	12.585	30.978	33.917	1.00 14.31
ATOM	122	CB	LEU	18	15.426	30.630	35.005	1.00 13.56
ATOM	123	CG	LEU	18	15.533	32.049	35.579	1.00 19.27
ATOM	124	CD1	LEU	18	16.740	32.182	36.489	1.00 21.40
ATOM	125	CD2	LEU	18	15.682	33.033	34.438	1.00 18.38
ATOM	126	N	ASP	19	12.480	31.551	36.082	1.00 17.88
ATOM	127	CA	ASP	19	11.476	32.577	35.940	1.00 19.57
ATOM	128	C	ASP	19	12.098	33.896	36.360	1.00 11.65
ATOM	129	O	ASP	19	12.486	34.044	37.493	1.00 16.82
ATOM	130	CB	ASP	19	10.234	32.305	36.847	1.00 24.92
ATOM	131	CG	ASP	19	9.305	31.262	36.282	1.00 38.46
ATOM	132	OD1	ASP	19	8.572	30.587	36.989	1.00 61.49
ATOM	133	OD2	ASP	19	9.337	31.189	34.949	1.00 22.44
ATOM	134	N	GLY	20	12.178	34.863	35.471	1.00 16.82
ATOM	135	CA	GLY	20	12.784	36.101	35.908	1.00 19.52
ATOM	136	C	GLY	20	12.048	37.385	35.538	1.00 19.35
ATOM	137	O	GLY	20	11.240	37.443	34.628	1.00 18.22
ATOM	138	N	ASP	21	12.401	38.407	36.286	1.00 13.19
ATOM	139	CA	ASP	21	11.908	39.737	36.112	1.00 16.36
ATOM	140	C	ASP	21	13.039	40.683	36.424	1.00 12.77
ATOM	141	O	ASP	21	13.517	40.742	37.569	1.00 15.18
ATOM	142	CB	ASP	21	10.701	40.036	37.040	1.00 22.26
ATOM	143	CG	ASP	21	10.230	41.491	37.022	1.00 30.80
ATOM	144	OD1	ASP	21	10.878	42.407	36.557	1.00 27.40
ATOM	145	OD2	ASP	21	9.062	41.658	37.604	1.00 45.92
ATOM	146	N	VAL	22	13.464	41.393	35.397	1.00 19.66
ATOM	147	CA	VAL	22	14.524	42.388	35.542	1.00 25.10
ATOM	148	C	VAL	22	14.010	43.780	35.154	1.00 18.26
ATOM	149	O	VAL	22	13.769	44.062	33.955	1.00 15.10
ATOM	150	CB	VAL	22	15.803	42.012	34.750	1.00 26.57
ATOM	151	CG1	VAL	22	16.861	43.127	34.896	1.00 24.27
ATOM	152	CG2	VAL	22	16.365	40.710	35.297	1.00 22.98
ATOM	153	N	ASN	23	13.823	44.641	36.166	1.00 25.32
ATOM	154	CA	ASN	23	13.319	45.993	35.908	1.00 32.81
ATOM	155	C	ASN	23	11.987	45.958	35.142	1.00 32.77
ATOM	156	O	ASN	23	11.774	46.730	34.187	1.00 30.47
ATOM	157	CB	ASN	23	14.344	46.831	35.096	1.00 31.26
ATOM	158	CG	ASN	23	15.374	47.607	35.938	1.00 24.72

FIG. 5-4

ATOM	159	OD1	ASN	23	15.795	47.183	37.024	1.00 27.22
ATOM	160	ND2	ASN	23	15.829	48.723	35.389	1.00 41.15
ATOM	161	N	GLY	24	11.118	45.024	35.519	1.00 24.95
ATOM	162	CA	GLY	24	9.831	44.919	34.848	1.00 23.22
ATOM	163	C	GLY	24	9.832	44.111	33.573	1.00 23.31
ATOM	164	O	GLY	24	8.780	43.868	33.024	1.00 28.37
ATOM	165	N	HIS	25	11.000	43.691	33.071	1.00 20.89
ATOM	166	CA	HIS	25	11.042	42.840	31.877	1.00 19.30
ATOM	167	C	HIS	25	10.981	41.373	32.316	1.00 27.26
ATOM	168	O	HIS	25	11.898	40.850	32.951	1.00 26.47
ATOM	169	CB	HIS	25	12.268	43.060	30.958	1.00 24.20
ATOM	170	CG	HIS	25	12.313	44.382	30.218	1.00 33.04
ATOM	171	ND1	HIS	25	12.917	45.514	30.758	1.00 37.58
ATOM	172	CD2	HIS	25	11.876	44.716	28.971	1.00 42.76
ATOM	173	CE1	HIS	25	12.801	46.497	29.867	1.00 39.14
ATOM	174	NE2	HIS	25	12.185	46.050	28.778	1.00 42.80
ATOM	175	N	LYS	26	9.872	40.728	32.028	1.00 25.90
ATOM	176	CA	LYS	26	9.675	39.355	32.446	1.00 26.27
ATOM	177	C	LYS	26	10.154	38.361	31.429	1.00 27.09
ATOM	178	O	LYS	26	10.027	38.576	30.232	1.00 25.75
ATOM	179	CB	LYS	26	8.230	39.069	32.863	1.00 27.58
ATOM	180	CG	LYS	26	7.873	39.770	34.166	1.00 44.94
ATOM	181	CD	LYS	26	6.369	39.914	34.400	1.00 71.44
ATOM	182	CE	LYS	26	6.008	41.000	35.421	1.00 45.29
ATOM	183	N	PHE	27	10.703	37.250	31.910	1.00 22.04
ATOM	184	CA	PHE	27	11.164	36.236	30.978	1.00 18.78
ATOM	185	C	PHE	27	11.273	34.863	31.619	1.00 14.75
ATOM	186	O	PHE	27	11.293	34.722	32.842	1.00 15.94
ATOM	187	CB	PHE	27	12.495	36.638	30.287	1.00 21.58
ATOM	188	CG	PHE	27	13.599	36.826	31.311	1.00 22.06
ATOM	189	CD1	PHE	27	14.490	35.791	31.612	1.00 23.61
ATOM	190	CD2	PHE	27	13.722	38.029	32.005	1.00 17.55
ATOM	191	CE1	PHE	27	15.487	35.963	32.579	1.00 16.61
ATOM	192	CE2	PHE	27	14.747	38.234	32.931	1.00 19.75
ATOM	193	CZ	PHE	27	15.621	37.187	33.234	1.00 13.83
ATOM	194	N	SER	28	11.370	33.857	30.752	1.00 12.40
ATOM	195	CA	SER	28	11.492	32.479	31.186	1.00 15.59
ATOM	196	C	SER	28	12.579	31.749	30.379	1.00 15.96
ATOM	197	O	SER	28	12.699	31.933	29.167	1.00 18.99
ATOM	198	CB	SER	28	10.143	31.702	31.086	1.00 14.48
ATOM	199	OG	SER	28	9.510	31.678	32.353	1.00 31.95

FIG. 5-5

ATOM	200	N	VAL	29	13.335	30.902	31.073	1.00 16.73
ATOM	201	CA	VAL	29	14.361	30.093	30.435	1.00 14.06
ATOM	202	C	VAL	29	14.258	28.614	30.187	1.00 6.80
ATOM	203	O	VAL	29	14.058	28.266	31.987	1.00 10.85
ATOM	204	CB	VAL	29	15.768	30.570	30.839	1.00 17.96
ATOM	205	CG1	VAL	29	16.826	29.599	30.234	1.00 15.30
ATOM	206	CG2	VAL	29	15.989	32.001	30.357	1.00 16.37
ATOM	207	N	SER	30	14.462	27.781	29.824	1.00 11.31
ATOM	208	CA	SER	30	14.535	26.351	30.011	1.00 17.96
ATOM	209	C	SER	30	15.917	25.818	29.571	1.00 11.26
ATOM	210	O	SER	30	16.398	26.157	28.513	1.00 13.17
ATOM	211	CB	SER	30	13.471	25.603	29.202	1.00 19.91
ATOM	212	OG	SER	30	12.249	25.667	29.882	1.00 48.74
ATOM	213	N	GLY	31	16.480	24.926	30.364	1.00 9.88
ATOM	214	CA	GLY	31	17.718	24.321	29.977	1.00 12.44
ATOM	215	C	GLY	31	17.737	22.816	30.249	1.00 13.16
ATOM	216	O	GLY	31	17.149	22.324	31.176	1.00 12.41
ATOM	217	N	GLU	32	18.459	22.112	29.433	1.00 13.44
ATOM	218	CA	GLU	32	18.622	20.670	29.570	1.00 13.73
ATOM	219	C	GLU	32	20.079	20.297	29.262	1.00 17.33
ATOM	220	O	GLU	32	20.734	20.946	28.456	1.00 15.56
ATOM	221	CB	GLU	32	17.761	19.893	28.543	1.00 12.67
ATOM	222	CG	GLU	32	16.264	20.187	28.618	1.00 26.43
ATOM	223	CD	GLU	32	15.501	19.547	27.468	1.00 21.13
ATOM	224	OE1	GLU	32	15.996	18.767	26.698	1.00 23.45
ATOM	225	OE2	GLU	32	14.292	20.022	27.337	1.00 30.63
ATOM	226	N	GLY	33	20.534	19.207	29.822	1.00 15.36
ATOM	227	CA	GLY	33	21.860	18.687	29.518	1.00 12.84
ATOM	228	C	GLY	33	22.236	17.602	30.467	1.00 14.69
ATOM	229	O	GLY	33	21.390	16.919	31.011	1.00 13.56
ATOM	230	N	GLU	34	23.525	17.453	30.702	1.00 15.15
ATOM	231	CA	GLU	34	23.971	16.450	31.621	1.00 18.14
ATOM	232	C	GLU	34	25.220	16.874	32.367	1.00 16.26
ATOM	233	O	GLU	34	25.926	17.760	31.944	1.00 18.67
ATOM	234	CB	GLU	34	24.180	15.114	30.927	1.00 22.53
ATOM	235	CG	GLU	34	24.948	15.261	29.624	1.00 33.78
ATOM	236	CD	GLU	34	24.879	14.020	28.796	1.00 55.15
ATOM	237	OE1	GLU	34	25.861	13.352	28.534	1.00 45.39
ATOM	238	OE2	GLU	34	23.653	13.719	28.430	1.00 56.26
ATOM	239	N	GLY	35	25.461	16.222	33.485	1.00 11.20
ATOM	240	CA	GLY	35	26.611	16.502	34.315	1.00 10.62

FIG. 5-6

ATOM	241	C	GLY	35	27.293	15.192	34.662	1.00 19.92
ATOM	242	O	GLY	35	26.650	14.161	34.750	1.00 16.69
ATOM	243	N	ASP	36	28.594	15.238	34.860	1.00 16.92
ATOM	244	CA	ASP	36	29.367	14.061	35.221	1.00 16.19
ATOM	245	C	ASP	36	30.396	14.505	36.233	1.00 13.94
ATOM	246	O	ASP	36	31.469	15.004	35.879	1.00 15.77
ATOM	247	CB	ASP	36	30.032	13.457	33.948	1.00 19.98
ATOM	248	CG	ASP	36	30.681	12.066	34.075	1.00 31.92
ATOM	249	OD1	ASP	36	31.236	11.519	33.141	1.00 30.97
ATOM	250	OD2	ASP	36	30.587	11.515	35.248	1.00 25.32
ATOM	251	N	ALA	37	30.015	14.402	37.490	1.00 13.40
ATOM	252	CA	ALA	37	30.818	14.846	38.582	1.00 12.98
ATOM	253	C	ALA	37	32.181	14.145	38.637	1.00 21.94
ATOM	254	O	ALA	37	33.084	14.604	39.331	1.00 13.61
ATOM	255	CB	ALA	37	30.070	14.741	39.916	1.00 11.49
ATOM	256	N	THR	38	32.307	13.016	37.945	1.00 15.63
ATOM	257	CA	THR	38	33.581	12.280	37.943	1.00 19.94
ATOM	258	C	THR	38	34.705	13.114	37.335	1.00 25.61
ATOM	259	O	THR	38	35.850	13.069	37.775	1.00 17.89
ATOM	260	CB	THR	38	33.462	10.898	37.299	1.00 22.57
ATOM	261	OG1	THR	38	32.543	10.146	38.067	1.00 29.86
ATOM	262	CG2	THR	38	34.821	10.213	37.355	1.00 22.90
ATOM	263	N	TYR	39	34.323	13.920	36.347	1.00 18.45
ATOM	264	CA	TYR	39	35.210	14.837	35.675	1.00 9.39
ATOM	265	C	TYR	39	34.874	16.291	35.991	1.00 14.41
ATOM	266	O	TYR	39	35.454	17.177	35.410	1.00 16.24
ATOM	267	CB	TYR	39	35.156	14.582	34.180	1.00 11.82
ATOM	268	CG	TYR	39	35.426	13.137	33.929	1.00 28.73
ATOM	269	CD1	TYR	39	36.715	12.633	34.065	1.00 33.75
ATOM	270	CD2	TYR	39	34.392	12.249	33.642	1.00 39.19
ATOM	271	CE1	TYR	39	36.982	11.276	33.828	1.00 29.75
ATOM	272	CE2	TYR	39	34.635	10.885	33.435	1.00 45.41
ATOM	273	CZ	TYR	39	35.943	10.410	33.570	1.00 57.62
ATOM	274	OH	TYR	39	36.199	9.070	33.364	1.00 70.77
ATOM	275	N	GLY	40	33.935	16.525	36.929	1.00 9.94
ATOM	276	CA	GLY	40	33.474	17.879	37.266	1.00 7.02
ATOM	277	C	GLY	40	32.952	18.600	36.004	1.00 9.45
ATOM	278	O	GLY	40	33.068	19.830	35.829	1.00 12.63
ATOM	279	N	LYS	41	32.380	17.823	35.092	1.00 5.44
ATOM	280	CA	LYS	41	31.954	18.335	33.842	1.00 6.63
ATOM	281	C	LYS	41	30.414	18.554	33.703	1.00 20.92

FIG. 5-7

ATOM	282	O	LYS	41	29.617	17.693	34.085	1.00	12.94
ATOM	283	CB	LYS	41	32.360	17.357	32.827	1.00	8.27
ATOM	284	CG	LYS	41	32.099	17.771	31.419	1.00	13.19
ATOM	285	CD	LYS	41	32.521	16.644	30.481	1.00	20.20
ATOM	286	CE	LYS	41	32.690	17.068	29.032	1.00	35.79
ATOM	287	NZ	LYS	41	33.113	15.954	28.147	1.00	47.56
ATOM	288	N	LEU	42	30.049	19.684	33.069	1.00	18.31
ATOM	289	CA	LEU	42	28.643	20.064	32.794	1.00	16.08
ATOM	290	C	LEU	42	28.456	20.422	31.330	1.00	14.23
ATOM	291	O	LEU	42	29.240	21.168	30.787	1.00	14.79
ATOM	292	CB	LEU	42	28.223	21.300	33.621	1.00	13.22
ATOM	293	CG	LEU	42	28.007	21.061	35.082	1.00	16.70
ATOM	294	CD1	LEU	42	27.894	22.406	35.782	1.00	13.79
ATOM	295	CD2	LEU	42	26.732	20.243	35.295	1.00	18.70
ATOM	296	N	THR	43	27.395	19.914	30.672	1.00	8.04
ATOM	297	CA	THR	43	27.103	20.275	29.282	1.00	4.87
ATOM	298	C	THR	43	25.636	20.666	29.186	1.00	17.23
ATOM	299	O	THR	43	24.811	19.818	29.442	1.00	14.38
ATOM	300	CB	THR	43	27.351	19.140	28.317	1.00	21.59
ATOM	301	OG1	THR	43	28.692	18.743	28.415	1.00	42.74
ATOM	302	CG2	THR	43	27.073	19.675	26.917	1.00	31.23
ATOM	303	N	LEU	44	25.327	21.934	28.830	1.00	11.83
ATOM	304	CA	LEU	44	23.944	22.409	28.847	1.00	13.81
ATOM	305	C	LEU	44	23.589	23.307	27.668	1.00	18.19
ATOM	306	O	LEU	44	24.416	23.989	27.107	1.00	13.86
ATOM	307	CB	LEU	44	23.725	23.275	30.125	1.00	15.37
ATOM	308	CG	LEU	44	23.369	22.584	31.456	1.00	24.69
ATOM	309	CD1	LEU	44	21.869	22.381	31.601	1.00	23.20
ATOM	310	CD2	LEU	44	24.083	21.286	31.650	1.00	46.18
ATOM	311	N	LYS	45	22.294	23.331	27.339	1.00	10.29
ATOM	312	CA	LYS	45	21.752	24.224	26.358	1.00	11.94
ATOM	313	C	LYS	45	20.534	24.913	26.957	1.00	19.35
ATOM	314	O	LYS	45	19.665	24.248	27.530	1.00	18.43
ATOM	315	CB	LYS	45	21.409	23.560	25.060	1.00	13.75
ATOM	316	CG	LYS	45	20.878	24.556	24.045	1.00	8.83
ATOM	317	CD	LYS	45	20.486	23.863	22.746	1.00	26.87
ATOM	318	CE	LYS	45	19.574	24.688	21.842	1.00	16.58
ATOM	319	NZ	LYS	45	19.318	24.024	20.555	1.00	18.33
ATOM	320	N	PHE	46	20.535	26.236	26.910	1.00	12.34
ATOM	321	CA	PHE	46	19.463	27.048	27.451	1.00	13.32
ATOM	322	C	PHE	46	18.759	27.718	26.343	1.00	18.26

FIG. 5-8

ATOM	323	O	PHE	46	19.386	28.093	25.360	1.00 16.83
ATOM	324	CB	PHE	46	19.934	28.101	28.473	1.00 15.29
ATOM	325	CG	PHE	46	20.773	27.495	29.552	1.00 13.81
ATOM	326	CD1	PHE	46	22.132	27.268	29.337	1.00 17.06
ATOM	327	CD2	PHE	46	20.209	27.121	30.774	1.00 8.24
ATOM	328	CE1	PHE	46	22.924	26.693	30.331	1.00 15.95
ATOM	329	CE2	PHE	46	20.979	26.524	31.767	1.00 11.90
ATOM	330	CZ	PHE	46	22.340	26.309	31.540	1.00 8.84
ATOM	331	N	ILE	47	17.440	27.845	26.498	1.00 13.24
ATOM	332	CA	ILE	47	16.588	28.453	25.479	1.00 18.02
ATOM	333	C	ILE	47	15.645	29.460	26.118	1.00 20.14
ATOM	334	O	ILE	47	15.039	29.162	27.148	1.00 17.67
ATOM	335	CB	ILE	47	15.737	27.386	24.801	1.00 22.67
ATOM	336	CG1	ILE	47	16.585	26.271	24.291	1.00 20.66
ATOM	337	CG2	ILE	47	15.024	28.002	23.641	1.00 33.79
ATOM	338	CD1	ILE	47	16.639	26.293	22.805	1.00 23.69
ATOM	339	N	CYS	48	15.564	30.653	25.561	1.00 14.68
ATOM	340	CA	CYS	48	14.681	31.635	26.170	1.00 16.93
ATOM	341	C	CYS	48	13.323	31.352	25.628	1.00 24.18
ATOM	342	O	CYS	48	13.122	31.513	24.453	1.00 20.63
ATOM	343	CB	CYS	48	15.063	33.116	25.885	1.00 16.85
ATOM	344	SG	CYS	48	13.913	34.268	26.712	1.00 22.06
ATOM	345	N	THR	49	12.424	30.871	26.484	1.00 27.31
ATOM	346	CA	THR	49	11.101	30.458	26.042	1.00 32.18
ATOM	347	C	THR	49	10.106	31.572	25.803	1.00 37.51
ATOM	348	O	THR	49	9.150	31.407	25.061	1.00 35.71
ATOM	349	CB	THR	49	10.537	29.417	26.972	1.00 23.66
ATOM	350	OG1	THR	49	10.387	29.989	28.258	1.00 30.10
ATOM	351	CG2	THR	49	11.512	28.226	27.022	1.00 29.98
ATOM	352	N	THR	50	10.314	32.693	26.447	1.00 32.34
ATOM	353	CA	THR	50	9.416	33.810	26.283	1.00 28.67
ATOM	354	C	THR	50	9.836	34.711	25.126	1.00 37.98
ATOM	355	O	THR	50	9.228	35.763	24.904	1.00 39.17
ATOM	356	CB	THR	50	9.251	34.611	27.589	1.00 36.23
ATOM	357	OG1	THR	50	10.512	34.980	28.118	1.00 35.37
ATOM	358	CG2	THR	50	8.507	33.773	28.602	1.00 27.78
ATOM	359	N	GLY	51	10.881	34.282	24.372	1.00 31.04
ATOM	360	CA	GLY	51	11.394	35.059	23.239	1.00 32.42
ATOM	361	C	GLY	51	12.865	35.542	23.427	1.00 48.45
ATOM	362	O	GLY	51	13.779	34.737	23.701	1.00 57.11
ATOM	363	N	LYS	52	13.087	36.862	23.282	1.00 36.08

FIG. 5-9

ATOM	364	CA	LYS	52	14.416	37.460	23.416	1.00 35.75
ATOM	365	C	LYS	52	14.827	37.726	24.861	1.00 29.65
ATOM	366	O	LYS	52	14.140	38.420	25.620	1.00 25.70
ATOM	367	CB	LYS	52	14.577	38.714	22.582	1.00 43.37
ATOM	368	CG	LYS	52	15.772	38.649	21.644	1.00 78.17
ATOM	369	N	LEU	53	15.983	37.190	25.250	1.00 19.22
ATOM	370	CA	LEU	53	16.439	37.430	26.596	1.00 13.52
ATOM	371	C	LEU	53	16.717	38.932	26.775	1.00 17.76
ATOM	372	O	LEU	53	17.392	39.539	25.973	1.00 21.59
ATOM	373	CB	LEU	53	17.705	36.567	26.845	1.00 17.39
ATOM	374	CG	LEU	53	18.100	36.435	28.302	1.00 17.43
ATOM	375	CD1	LEU	53	17.048	35.621	29.053	1.00 20.12
ATOM	376	CD2	LEU	53	19.440	35.718	28.368	1.00 16.11
ATOM	377	N	PRO	54	16.197	39.525	27.817	1.00 16.69
ATOM	378	CA	PRO	54	16.324	40.962	28.092	1.00 18.60
ATOM	379	C	PRO	54	17.638	41.414	28.707	1.00 25.39
ATOM	380	O	PRO	54	17.865	42.609	28.861	1.00 18.88
ATOM	381	CB	PRO	54	15.268	41.265	29.139	1.00 22.52
ATOM	382	CG	PRO	54	14.832	39.933	29.720	1.00 26.02
ATOM	383	CD	PRO	54	15.318	38.855	28.779	1.00 21.26
ATOM	384	N	VAL	55	18.435	40.455	29.161	1.00 23.32
ATOM	385	CA	VAL	55	19.746	40.716	29.711	1.00 15.83
ATOM	386	C	VAL	55	20.688	39.868	28.973	1.00 19.38
ATOM	387	O	VAL	55	20.268	39.035	28.219	1.00 20.34
ATOM	388	CB	VAL	55	19.814	40.409	31.147	1.00 17.67
ATOM	389	CG1	VAL	55	18.864	41.340	31.851	1.00 22.52
ATOM	390	CG2	VAL	55	19.402	38.959	31.397	1.00 19.11
ATOM	391	N	PRO	56	21.963	40.070	29.167	1.00 19.37
ATOM	392	CA	PRO	56	22.911	39.258	28.447	1.00 13.09
ATOM	393	C	PRO	56	23.059	37.834	29.038	1.00 5.83
ATOM	394	O	PRO	56	23.067	37.631	30.254	1.00 12.35
ATOM	395	CB	PRO	56	24.231	40.062	28.420	1.00 18.34
ATOM	396	CG	PRO	56	23.851	41.478	28.849	1.00 20.73
ATOM	397	CD	PRO	56	22.525	41.379	29.578	1.00 18.66
ATOM	398	N	TRP	57	23.202	36.848	28.158	1.00 11.12
ATOM	399	CA	TRP	57	23.354	35.458	28.595	1.00 12.55
ATOM	400	C	TRP	57	24.411	35.239	29.700	1.00 14.13
ATOM	401	O	TRP	57	24.178	34.586	30.709	1.00 11.49
ATOM	402	CB	TRP	57	23.604	34.535	27.406	1.00 10.56
ATOM	403	CG	TRP	57	22.335	34.237	26.641	1.00 12.65
ATOM	404	CD1	TRP	57	21.999	34.714	25.426	1.00 16.24

FIG. 5-10

ATOM	405	CD2	TRP	57	21.281	33.327	27.013	1.00 12.50
ATOM	406	NE1	TRP	57	20.784	34.200	25.018	1.00 14.25
ATOM	407	CE2	TRP	57	20.315	22.354	25.963	1.00 14.65
ATOM	408	CE3	TRP	57	21.052	32.521	28.129	1.00 12.01
ATOM	409	CZ2	TRP	57	19.148	32.583	26.007	1.00 14.36
ATOM	410	CZ3	TRP	57	19.887	31.767	28.170	1.00 14.23
ATOM	411	CH2	TRP	57	18.945	31.818	27.128	1.00 10.01
ATOM	412	N	PRO	58	25.594	35.800	29.518	1.00 15.78
ATOM	413	CA	PRO	58	26.629	35.616	30.503	1.00 9.53
ATOM	414	C	PRO	58	26.241	36.010	31.878	1.00 9.71
ATOM	415	O	PRO	58	26.760	35.467	32.825	1.00 11.70
ATOM	416	CB	PRO	58	27.833	36.441	30.040	1.00 10.83
ATOM	417	CG	PRO	58	27.597	36.748	28.582	1.00 18.50
ATOM	418	CD	PRO	58	26.137	36.432	28.278	1.00 15.82
ATOM	419	N	THR	59	25.336	36.977	32.021	1.00 7.54
ATOM	420	CA	THR	59	24.976	37.366	33.357	1.00 4.53
ATOM	421	C	THR	59	24.228	36.258	34.137	1.00 8.41
ATOM	422	O	THR	59	24.174	36.261	35.367	1.00 10.57
ATOM	423	CB	THR	59	24.187	38.691	33.384	1.00 16.64
ATOM	424	OG1	THR	59	22.895	38.480	32.844	1.00 15.51
ATOM	425	CG2	THR	59	24.917	39.731	32.542	1.00 15.76
ATOM	426	N	LEU	60	23.686	35.304	33.427	1.00 11.99
ATOM	427	CA	LEU	60	22.899	34.248	34.073	1.00 9.15
ATOM	428	C	LEU	60	23.657	32.944	34.385	1.00 15.62
ATOM	429	O	LEU	60	23.118	32.027	35.042	1.00 11.99
ATOM	430	CB	LEU	60	21.645	33.914	33.203	1.00 7.67
ATOM	431	CG	LEU	60	20.728	35.111	33.042	1.00 14.06
ATOM	432	CD1	LEU	60	19.620	34.775	32.062	1.00 14.54
ATOM	433	CD2	LEU	60	20.142	35.456	34.394	1.00 10.67
ATOM	434	N	VAL	61	24.893	32.837	33.917	1.00 11.27
ATOM	435	CA	VAL	61	25.656	31.587	34.094	1.00 4.37
ATOM	436	C	VAL	61	25.678	31.013	35.496	1.00 6.02
ATOM	437	O	VAL	61	25.385	29.805	35.743	1.00 10.75
ATOM	438	CB	VAL	61	27.050	31.643	33.406	1.00 7.14
ATOM	439	CG1	VAL	61	27.888	30.396	33.805	1.00 6.47
ATOM	440	CG2	VAL	61	26.890	31.745	31.876	1.00 6.63
ATOM	441	N	THR	62	26.053	31.843	36.442	1.00 7.02
ATOM	442	CA	THR	62	26.178	31.421	37.808	1.00 6.51
ATOM	443	C	THR	62	24.862	30.954	38.410	1.00 9.22
ATOM	444	O	THR	62	24.801	30.163	39.352	1.00 6.99
ATOM	445	CB	THR	62	26.816	32.520	38.660	1.00 16.97

FIG. 5-11

ATOM	446	OG1	THR	62	26.103	33.744	38.453	1.00 12.00
ATOM	447	CG2	THR	62	28.297	32.708	39.225	1.00 8.86
ATOM	448	N	THR	63	23.814	31.547	37.910	1.00 9.98
ATOM	449	CA	THR	63	22.457	31.212	38.388	1.00 6.69
ATOM	450	C	THR	63	22.033	29.830	37.865	1.00 8.14
ATOM	451	O	THR	63	21.499	28.984	38.604	1.00 13.48
ATOM	452	CB	THR	63	21.458	32.312	37.295	1.00 11.14
ATOM	453	OG1	THR	63	21.785	33.498	38.602	1.00 11.75
ATOM	454	OG2	THR	63	20.024	31.897	38.296	1.00 9.31
ATOM	455	N	PHE	64	22.250	29.620	36.583	1.00 10.19
ATOM	456	CA	PHE	64	21.895	28.371	35.995	1.00 8.00
ATOM	457	C	PHE	64	22.774	27.253	36.518	1.00 25.26
ATOM	458	O	PHE	64	23.313	26.147	36.761	1.00 9.64
ATOM	459	CB	PHE	64	22.114	28.438	34.513	1.00 6.88
ATOM	460	CG	PHE	64	21.233	29.357	33.750	1.00 10.96
ATOM	461	CD1	PHE	64	21.724	29.954	32.593	1.00 9.15
ATOM	462	CD2	PHE	64	19.899	29.563	34.106	1.00 14.43
ATOM	463	CE1	PHE	64	20.936	30.792	31.805	1.00 14.20
ATOM	464	CE2	PHE	64	19.077	30.375	33.317	1.00 13.95
ATOM	465	CZ	PHE	64	19.597	30.983	32.171	1.00 16.35
HETATM	466	N1	CRO	66	24.077	27.513	36.610	1.00 11.86
HETATM	467	CG1	CRO	66	25.155	25.422	34.796	1.00 16.67
HETATM	468	OG1	CRO	66	26.679	27.129	35.461	1.00 14.22
HETATM	469	CB1	CRO	66	25.931	26.035	35.930	1.00 10.77
HETATM	470	CA1	CRO	66	25.011	26.478	37.078	1.00 7.34
HETATM	471	C1	CRO	66	25.718	26.991	38.253	1.00 17.70
HETATM	472	N2	CRO	66	26.975	27.732	38.216	1.00 9.21
HETATM	473	OH	CRO	66	32.894	30.804	36.971	1.00 13.84
HETATM	474	CD2	CRO	66	30.487	30.110	39.805	1.00 10.79
HETATM	475	CE2	CRO	66	31.614	30.563	39.085	1.00 10.01
HETATM	476	CZ	CRO	66	31.718	30.300	37.721	1.00 9.48
HETATM	477	CE1	CRO	66	30.707	29.546	37.033	1.00 17.44
HETATM	478	CD1	CRO	66	29.541	29.103	37.742	1.00 11.31
HETATM	479	CG2	CRO	66	29.437	29.370	39.124	1.00 7.67
HETATM	480	CB2	CRO	66	28.329	28.822	39.960	1.00 10.75
HETATM	481	CA2	CRO	66	27.197	28.245	39.512	1.00 16.08
HETATM	482	C2	CRO	66	26.043	27.875	40.370	1.00 5.46
HETATM	483	O2	CRO	66	26.022	27.962	41.566	1.00 13.20
HETATM	484	N3	CRO	66	25.240	26.978	39.517	1.00 18.43
HETATM	485	CA3	CRO	66	23.840	26.511	39.734	1.00 10.40
HETATM	486	C3	CRO	66	23.413	25.550	40.817	1.00 11.96

FIG. 5-12

HETATM	487	O3	CRO	66	22.747	26.014	41.764	1.00	100.00
ATOM	488	N	VAL	68	23.737	24.208	41.005	1.00	29.95
ATOM	489	CA	VAL	68	24.209	22.972	40.304	1.00	17.16
ATOM	490	C	VAL	68	25.692	22.550	40.734	1.00	14.88
ATOM	491	O	VAL	68	26.378	21.821	40.026	1.00	9.03
ATOM	492	CB	VAL	68	23.870	22.899	38.831	1.00	18.94
ATOM	493	CG1	VAL	68	24.685	22.088	37.942	1.00	17.17
ATOM	494	CG2	VAL	68	22.396	22.538	38.680	1.00	18.80
ATOM	495	N	GLN	69	26.129	22.965	41.914	1.00	11.04
ATOM	496	CA	GLN	69	27.465	22.764	42.394	1.00	15.00
ATOM	497	C	GLN	69	27.749	21.366	42.893	1.00	22.46
ATOM	498	O	GLN	69	28.876	21.026	43.154	1.00	15.84
ATOM	499	CB	GLN	69	27.929	23.852	43.414	1.00	10.93
ATOM	500	CG	GLN	69	28.202	25.174	42.615	1.00	14.13
ATOM	501	CD	GLN	69	28.216	26.385	43.520	1.00	17.01
ATOM	502	OE1	GLN	69	27.433	26.476	44.448	1.00	18.94
ATOM	503	NE2	GLN	69	29.151	27.300	43.241	1.00	8.52
ATOM	504	N	CYS	70	26.703	20.540	42.906	1.00	12.10
ATOM	505	CA	CYS	70	26.862	19.171	43.287	1.00	11.84
ATOM	506	C	CYS	70	27.611	18.391	42.175	1.00	10.54
ATOM	507	O	CYS	70	28.036	17.242	42.367	1.00	14.70
ATOM	508	CB	CYS	70	25.476	18.584	43.596	1.00	14.52
ATOM	509	SG	CYS	70	24.325	19.012	42.251	1.00	15.61
ATOM	510	N	PHE	71	27.801	19.029	41.005	1.00	8.64
ATOM	511	CA	PHE	71	28.525	18.419	39.883	1.00	6.59
ATOM	512	C	PHE	71	30.041	18.754	39.876	1.00	16.43
ATOM	513	O	PHE	71	30.753	18.481	38.916	1.00	13.05
ATOM	514	CB	PHE	71	27.951	18.771	38.523	1.00	7.61
ATOM	515	CG	PHE	71	26.669	18.016	38.303	1.00	14.73
ATOM	516	CD1	PHE	71	26.693	16.642	38.050	1.00	10.34
ATOM	517	CD2	PHE	71	25.434	18.660	38.453	1.00	17.14
ATOM	518	CE1	PHE	71	25.506	15.931	37.866	1.00	15.09
ATOM	519	CE2	PHE	71	24.238	17.961	38.300	1.00	20.92
ATOM	520	CZ	PHE	71	24.282	16.598	37.990	1.00	18.49
ATOM	521	N	SER	72	30.500	19.370	40.938	1.00	13.13
ATOM	522	CA	SER	72	31.889	19.715	41.075	1.00	11.65
ATOM	523	C	SER	72	32.689	18.446	41.357	1.00	14.56
ATOM	524	O	SER	72	32.256	17.566	42.122	1.00	10.90
ATOM	525	CB	SER	72	32.075	20.672	42.257	1.00	8.65
ATOM	526	OG	SER	72	31.361	21.874	42.038	1.00	19.29
ATOM	527	N	ARG	73	33.905	18.358	40.794	1.00	16.27

FIG. 5-13

ATOM	528	CA	ARG	73	34.695	17.212	41.117	1.00 13.56
ATOM	529	C	ARG	73	35.414	17.426	42.443	1.00 19.96
ATOM	530	O	ARG	73	36.182	18.376	42.599	1.00 16.14
ATOM	531	CB	ARG	73	35.694	16.817	40.013	1.00 16.80
ATOM	532	CG	ARG	73	36.549	15.616	40.460	1.00 20.13
ATOM	533	CD	ARG	73	37.489	15.093	39.381	1.00 28.47
ATOM	534	NE	ARG	73	38.743	15.859	39.260	1.00 25.48
ATOM	535	CZ	ARG	73	39.756	15.777	40.127	1.00 28.04
ATOM	536	NH1	ARG	73	39.688	15.004	41.195	1.00 28.76
ATOM	537	NH2	ARG	73	40.865	16.504	39.918	1.00 39.65
ATOM	538	N	TYR	74	35.151	16.561	43.424	1.00 12.05
ATOM	539	CA	TYR	74	35.861	16.659	44.690	1.00 11.57
ATOM	540	C	TYR	74	36.946	15.566	44.721	1.00 25.02
ATOM	541	O	TYR	74	36.658	14.387	44.558	1.00 19.71
ATOM	542	CB	TYR	74	34.978	16.528	45.934	1.00 15.51
ATOM	543	CG	TYR	74	34.395	17.850	46.402	1.00 16.59
ATOM	544	CD1	TYR	74	33.455	18.546	45.631	1.00 14.44
ATOM	545	CD2	TYR	74	34.799	18.399	47.618	1.00 15.94
ATOM	546	CE1	TYR	74	32.901	19.756	46.059	1.00 7.99
ATOM	547	CE2	TYR	74	34.261	19.612	48.058	1.00 18.29
ATOM	548	CZ	TYR	74	33.294	20.276	47.298	1.00 13.87
ATOM	549	OH	TYR	74	32.829	21.507	47.738	1.00 18.39
ATOM	550	N	PRO	75	38.181	15.947	44.902	1.00 19.20
ATOM	551	CA	PRO	75	39.213	14.940	44.995	1.00 18.42
ATOM	552	C	PRO	75	38.958	13.993	46.175	1.00 15.60
ATOM	553	O	PRO	75	39.373	14.361	47.174	1.00 11.99
ATOM	554	CB	PRO	75	40.514	15.681	45.196	1.00 18.31
ATOM	555	CG	PRO	75	40.242	17.158	44.868	1.00 24.81
ATOM	556	CD	PRO	75	38.742	17.306	44.694	1.00 15.41
ATOM	557	N	ASP	76	39.433	12.756	46.038	1.00 18.63
ATOM	558	CA	ASP	76	39.269	11.770	47.062	1.00 16.19
ATOM	559	C	ASP	76	39.581	12.280	48.431	1.00 15.92
ATOM	560	O	ASP	76	38.862	12.042	49.389	1.00 17.35
ATOM	561	CB	ASP	76	40.083	10.507	46.790	1.00 18.69
ATOM	562	CG	ASP	76	39.826	9.432	47.825	1.00 24.04
ATOM	563	OD1	ASP	76	40.523	9.268	48.817	1.00 29.72
ATOM	564	OD2	ASP	76	38.732	8.743	47.584	1.00 40.96
ATOM	565	N	HIS	77	40.647	12.984	48.561	1.00 18.79
ATOM	566	CA	HIS	77	40.978	13.418	49.877	1.00 19.36
ATOM	567	C	HIS	77	40.117	14.507	50.397	1.00 24.57
ATOM	568	O	HIS	77	40.205	14.826	51.551	1.00 27.15

FIG. 5-14

ATOM	569	CB	HIS	77	42.435	13.806	50.042	1.00 19.84
ATOM	570	CG	HIS	77	42.743	15.035	49.322	1.00 17.31
ATOM	571	ND1	HIS	77	42.925	15.028	47.953	1.00 21.86
ATOM	572	CD2	HIS	77	42.925	16.295	49.774	1.00 18.70
ATOM	573	CE1	HIS	77	43.203	16.289	47.593	1.00 17.49
ATOM	574	NE2	HIS	77	43.213	17.069	48.668	1.00 18.11
ATOM	575	N	MSE	78	39.277	15.069	49.565	1.00 25.36
ATOM	576	CA	MSE	78	38.412	16.140	50.026	1.00 24.65
ATOM	577	C	MSE	78	36.920	15.774	50.066	1.00 26.47
ATOM	578	O	MSE	78	36.070	16.636	50.260	1.00 28.16
ATOM	579	CB	MSE	78	38.596	17.331	49.121	1.00 26.38
ATOM	580	CG	MSE	78	39.803	18.177	49.406	1.00 27.01
ATOM	581	SE	MSE	78	39.987	19.608	48.177	1.00 43.09
ATOM	582	CE	MSE	78	38.874	20.873	49.044	1.00 27.11
ATOM	583	N	LYS	79	36.606	14.509	49.856	1.00 18.68
ATOM	584	CA	LYS	79	35.216	14.061	49.853	1.00 21.54
ATOM	585	C	LYS	79	34.406	14.449	51.082	1.00 20.21
ATOM	586	O	LYS	79	33.186	14.652	51.025	1.00 21.08
ATOM	587	CB	LYS	79	35.152	12.581	49.612	1.00 23.48
ATOM	588	CG	LYS	79	35.859	12.225	48.317	1.00 41.09
ATOM	589	CD	LYS	79	35.159	11.134	47.535	1.00 34.66
ATOM	590	CE	LYS	79	35.796	10.881	46.181	1.00 53.46
ATOM	591	NZ	LYS	79	35.084	11.549	45.080	1.00 49.53
ATOM	592	N	ARG	80	35.069	14.542	52.213	1.00 19.77
ATOM	593	CA	ARG	80	34.365	14.874	53.434	1.00 20.13
ATOM	594	C	ARG	80	33.898	16.311	53.481	1.00 26.42
ATOM	595	O	ARG	80	33.251	16.717	54.467	1.00 23.51
ATOM	596	CB	ARG	80	35.155	14.549	54.700	1.00 24.58
ATOM	597	CG	ARG	80	36.204	15.620	55.034	1.00 29.71
ATOM	598	CD	ARG	80	36.964	15.344	56.335	1.00 61.30
ATOM	599	NE	ARG	80	36.551	16.230	57.415	1.00 71.14
ATOM	600	CZ	ARG	80	37.398	16.882	58.192	1.00 100.00
ATOM	601	NH1	ARG	80	38.714	16.758	48.040	1.00 100.00
ATOM	602	NH2	ARG	80	36.917	17.679	59.155	1.00 99.06
ATOM	603	N	HIS	81	34.275	17.121	52.473	1.00 18.77
ATOM	604	CA	HIS	81	33.903	18.547	52.499	1.00 19.60
ATOM	605	C	HIS	81	32.841	18.883	51.486	1.00 18.62
ATOM	606	O	HIS	81	32.557	20.043	51.295	1.00 17.76
ATOM	607	CB	HIS	81	35.129	19.472	52.283	1.00 20.39
ATOM	608	CG	HIS	81	36.221	19.224	53.305	1.00 28.02
ATOM	609	ND1	HIS	81	36.127	19.701	54.618	1.00 30.59

FIG. 5-15

ATOM	610	CD2	HIS	81	37.392	18.535	53.202	1.00 29.02
ATOM	611	CE1	HIS	81	37.218	19.308	55.265	1.00 26.24
ATOM	612	NE2	HIS	81	37.991	18.603	54.452	1.00 28.18
ATOM	613	N	ASP	82	32.298	17.843	50.841	1.00 12.20
ATOM	614	CA	ASP	82	31.358	18.011	49.769	1.00 13.24
ATOM	615	C	ASP	82	29.922	18.148	50.259	1.00 24.30
ATOM	616	O	ASP	82	29.175	17.195	50.243	1.00 16.55
ATOM	617	CB	ASP	82	31.480	16.917	48.730	1.00 12.23
ATOM	618	CG	ASP	82	30.642	17.209	47.518	1.00 9.92
ATOM	619	OD1	ASP	82	29.870	18.134	47.459	1.00 20.31
ATOM	620	OD2	ASP	82	30.938	16.466	46.507	1.00 11.12
ATOM	621	N	PHE	83	29.566	19.353	50.705	1.00 23.66
ATOM	622	CA	PHE	83	28.220	19.634	51.201	1.00 20.23
ATOM	623	C	PHE	83	27.154	19.333	50.168	1.00 20.93
ATOM	624	O	PHE	83	26.116	18.733	50.503	1.00 15.97
ATOM	625	CB	PHE	83	28.077	21.106	51.666	1.00 19.59
ATOM	626	CG	PHE	83	26.624	21.613	51.805	1.00 16.91
ATOM	627	CD1	PHE	83	25.946	21.498	53.021	1.00 17.76
ATOM	628	CD2	PHE	83	25.968	22.236	50.734	1.00 18.88
ATOM	629	CE1	PHE	83	24.635	21.960	53.156	1.00 24.13
ATOM	630	CE2	PHE	83	24.650	22.690	50.840	1.00 19.24
ATOM	631	CZ	PHE	83	24.001	22.575	52.068	1.00 20.67
ATOM	632	N	PHE	84	27.432	19.784	48.921	1.00 14.06
ATOM	633	CA	PHE	84	26.515	19.693	47.809	1.00 12.96
ATOM	634	C	PHE	84	25.893	18.332	47.602	1.00 24.96
ATOM	635	O	PHE	84	24.674	18.200	47.534	1.00 21.55
ATOM	636	CB	PHE	84	27.085	20.265	46.513	1.00 13.44
ATOM	637	CG	PHE	84	27.630	21.645	46.721	1.00 14.27
ATOM	638	CD1	PHE	84	29.001	21.845	46.890	1.00 15.17
ATOM	639	CD2	PHE	84	26.781	22.753	46.752	1.00 13.48
ATOM	640	CE1	PHE	84	29.520	23.129	47.073	1.00 14.63
ATOM	641	CE2	PHE	84	27.276	24.041	46.969	1.00 16.34
ATOM	642	CZ	PHE	84	28.650	24.221	47.137	1.00 15.77
ATOM	643	N	LYS	85	26.738	17.330	47.482	1.00 14.07
ATOM	644	CA	LYS	85	26.294	15.985	47.283	1.00 13.30
ATOM	645	C	LYS	85	25.657	15.371	48.547	1.00 13.43
ATOM	646	O	LYS	85	24.773	14.509	48.429	1.00 18.46
ATOM	647	CB	LYS	85	27.434	15.089	46.757	1.00 17.38
ATOM	648	CG	LYS	85	27.873	15.372	45.323	1.00 13.93
ATOM	649	CD	LYS	85	28.969	14.381	44.888	1.00 13.23
ATOM	650	CE	LYS	85	29.766	14.819	43.662	1.00 10.36

FIG. 5-16

ATOM	651	NZ	LYS	85	30.319	16.185	43.773	1.00 12.92
ATOM	652	N	SER	86	26.119	15.795	49.752	1.00 11.03
ATOM	653	CA	SER	86	25.610	15.267	50.998	1.00 12.09
ATOM	654	C	SER	86	24.156	15.639	51.240	1.00 21.58
ATOM	655	O	SER	86	23.452	14.979	52.013	1.00 19.89
ATOM	656	CB	SER	86	26.448	15.661	52.208	1.00 16.45
ATOM	657	OG	SER	86	26.308	17.042	52.495	1.00 22.05
ATOM	658	N	ALA	87	23.705	16.698	50.582	1.00 15.09
ATOM	659	CA	ALA	87	22.333	17.138	50.762	1.00 19.52
ATOM	660	C	ALA	87	21.337	16.399	49.870	1.00 18.60
ATOM	661	O	ALA	87	20.162	16.557	50.040	1.00 19.55
ATOM	662	CB	ALA	87	22.204	18.647	50.632	1.00 19.23
ATOM	663	N	MSE	88	21.835	15.536	48.976	1.00 14.05
ATOM	664	CA	MSE	88	21.007	14.796	48.035	1.00 15.32
ATOM	665	C	MSE	88	20.496	13.448	48.579	1.00 21.48
ATOM	666	O	MSE	88	21.109	12.876	49.457	1.00 23.03
ATOM	667	CB	MSE	88	21.848	14.593	46.791	1.00 16.98
ATOM	668	CG	MSE	88	22.263	15.891	46.131	1.00 10.66
ATOM	669	SE	MSE	88	20.737	16.894	45.394	1.00 31.99
ATOM	670	CE	MSE	88	21.318	18.684	45.748	1.00 28.86
ATOM	671	N	PRO	89	19.363	12.930	48.084	1.00 14.78
ATOM	672	CA	PRO	89	18.552	13.475	47.008	1.00 14.80
ATOM	673	C	PRO	89	17.572	14.611	47.385	1.00 12.10
ATOM	674	O	PRO	89	17.085	15.301	46.493	1.00 18.06
ATOM	675	CB	PRO	89	17.733	12.294	46.494	1.00 17.00
ATOM	676	CG	PRO	89	17.726	11.261	47.607	1.00 15.83
ATOM	677	CD	PRO	89	18.844	11.642	48.560	1.00 17.16
ATOM	678	N	GLU	90	17.278	14.795	48.695	1.00 14.63
ATOM	679	CA	GLU	90	16.348	15.838	49.157	1.00 20.68
ATOM	680	C	GLU	90	16.701	17.229	48.645	1.00 25.59
ATOM	681	O	GLU	90	15.833	18.042	48.368	1.00 21.57
ATOM	682	CB	GLU	90	16.031	15.816	50.682	1.00 22.21
ATOM	683	CG	GLU	90	15.782	14.403	51.223	1.00 37.69
ATOM	684	CD	GLU	90	17.071	13.641	51.447	1.00 83.49
ATOM	685	OE1	GLU	90	18.179	14.151	51.342	1.00 54.80
ATOM	686	OE2	GLU	90	16.875	12.373	51.749	1.00 64.65
ATOM	687	N	GLY	91	17.977	17.509	48.510	1.00 21.39
ATOM	688	CA	GLY	91	18.394	18.769	47.906	1.00 17.77
ATOM	689	C	GLY	91	18.673	19.911	48.839	1.00 12.17
ATOM	690	O	GLY	91	18.769	19.764	50.055	1.00 16.81
ATOM	691	N	TYR	92	18.861	21.086	48.225	1.00 13.02

FIG. 5-17

ATOM	692	CA	TYR	92	19.143	22.266	48.994	1.00	10.33
ATOM	693	C	TYR	92	18.575	23.478	48.347	1.00	9.87
ATOM	694	O	TYR	92	18.270	23.483	47.144	1.00	15.89
ATOM	695	CB	TYR	92	20.678	22.488	49.278	1.00	15.40
ATOM	696	CG	TYR	92	21.546	22.468	48.012	1.00	15.13
ATOM	697	CD1	TYR	92	21.620	23.576	47.166	1.00	14.75
ATOM	698	CD2	TYR	92	22.317	21.350	47.683	1.00	16.09
ATOM	699	CE1	TYR	92	22.404	23.561	46.006	1.00	6.50
ATOM	700	CE2	TYR	92	23.067	21.300	46.504	1.00	15.12
ATOM	701	CZ	TYR	92	23.156	22.424	45.683	1.00	18.13
ATOM	702	OH	TYR	92	23.944	22.393	44.517	1.00	13.37
ATOM	703	N	VAL	93	18.447	24.504	49.189	1.00	11.93
ATOM	704	CA	VAL	93	18.025	25.822	48.778	1.00	14.74
ATOM	705	C	VAL	93	19.281	26.666	48.625	1.00	16.00
ATOM	706	O	VAL	93	20.172	26.625	49.451	1.00	16.16
ATOM	707	CB	VAL	93	17.073	26.480	49.791	1.00	23.45
ATOM	708	CG1	VAL	93	16.855	27.937	49.413	1.00	26.05
ATOM	709	CG2	VAL	93	15.716	25.764	49.771	1.00	22.90
ATOM	710	N	GLN	94	19.361	27.345	47.521	1.00	13.78
ATOM	711	CA	GLN	94	20.480	28.195	47.227	1.00	10.53
ATOM	712	C	GLN	94	19.948	29.583	46.998	1.00	12.23
ATOM	713	O	GLN	94	19.153	29.788	46.061	1.00	15.52
ATOM	714	CB	GLN	94	21.232	27.727	45.934	1.00	7.95
ATOM	715	CG	GLN	94	22.361	28.708	45.469	1.00	11.87
ATOM	716	CD	GLN	94	23.431	27.999	44.632	1.00	12.04
ATOM	717	OE1	GLN	94	23.805	26.879	44.946	1.00	13.60
ATOM	718	NE2	GLN	94	23.719	28.527	43.449	1.00	7.98
ATOM	719	N	GLU	95	20. 396	30.531	47.820	1.00	11.78
ATOM	720	CA	GLU	95	19.974	31.899	47.643	1.00	13.47
ATOM	721	C	GLU	95	21.149	32.804	47.398	1.00	18.42
ATOM	722	O	GLU	95	22.206	32.623	47.985	1.00	19.23
ATOM	723	CB	GLU	95	19.277	32.427	48.878	1.00	13.52
ATOM	724	CG	GLU	95	18.009	31.684	49.215	1.00	28.46
ATOM	725	CD	GLU	95	17.657	32.016	50.622	1.00	45.93
ATOM	726	OE1	GLU	95	17.574	33.166	51.011	1.00	100.00
ATOM	727	OE2	GLU	95	17.764	30.987	51.423	1.00	61.33
ATOM	728	N	ARG	96	20.929	33.838	46.601	1.00	16.51
ATOM	729	CA	ARG	96	21.978	34.783	46.342	1.00	16.87
ATOM	730	C	ARG	96	21.510	36.195	46.206	1.00	15.84
ATOM	731	O	ARG	96	20.389	36.488	45.806	1.00	15.01
ATOM	732	CB	ARG	96	22.582	34.463	44.967	1.00	16.19

FIG. 5-18

ATOM	733	CG	ARG	96	23.495	33.247	44.929	1.00	17.61
ATOM	734	CD	ARG	96	24.615	33.453	43.908	1.00	9.06
ATOM	735	NE	ARG	96	25.411	32.277	43.766	1.00	9.88
ATOM	736	CZ	ARG	96	25.434	31.493	42.693	1.00	20.03
ATOM	737	NH1	ARG	96	24.684	31.709	41.615	1.00	15.29
ATOM	738	NH2	ARG	96	26.236	30.430	42.714	1.00	11.03
ATOM	739	N	THR	97	22.470	37.068	46.344	1.00	13.39
ATOM	740	CA	THR	97	22.368	38.424	45.935	1.00	13.12
ATOM	741	C	THR	97	23.593	38.688	45.084	1.00	16.81
ATOM	742	O	THR	97	24.686	38.347	45.485	1.00	19.25
ATOM	743	CB	THR	97	22.282	39.442	47.066	1.00	26.27
ATOM	744	OG1	THR	97	21.225	39.101	47.945	1.00	31.43
ATOM	745	CG2	THR	97	22.038	40.804	46.445	1.00	15.90
ATOM	746	N	ILE	98	23.396	39.219	43.899	1.00	16.23
ATOM	747	CA	ILE	98	24.486	39.526	42.977	1.00	16.70
ATOM	748	C	ILE	98	24.533	41.017	42.686	1.00	21.10
ATOM	749	O	ILE	98	23.628	41.566	42.075	1.00	14.58
ATOM	750	CB	ILE	98	24.385	38.752	41.660	1.00	13.47
ATOM	751	CG1	ILE	98	24.480	37.236	41.890	1.00	16.09
ATOM	752	CG2	ILE	98	25.457	39.231	40.679	1.00	13.30
ATOM	753	CD1	ILE	98	23.875	36.431	40.738	1.00	13.93
ATOM	754	N	PHE	99	25.613	41.678	43.110	1.00	14.86
ATOM	755	CA	PHE	99	25.719	43.098	42.896	1.00	12.44
ATOM	756	C	PHE	99	26.514	43.441	41.699	1.00	20.37
ATOM	757	O	PHE	99	27.696	43.164	41.700	1.00	20.07
ATOM	758	CB	PHE	99	26.401	43.770	44.084	1.00	15.96
ATOM	759	CG	PHE	99	25.638	43.624	45.356	1.00	21.41
ATOM	760	CD1	PHE	99	25.863	42.524	46.189	1.00	24.98
ATOM	761	CD2	PHE	99	24.698	44.585	45.743	1.00	22.94
ATOM	762	CE1	PHE	99	25.176	42.400	47.400	1.00	32.06
ATOM	763	CE2	PHE	99	23.992	44.469	46.946	1.00	24.26
ATOM	764	CZ	PHE	99	24.235	43.369	47.771	1.00	28.19
ATOM	765	N	PHE	100	25.906	44.085	40.704	1.00	12.53
ATOM	766	CA	PHE	100	26.679	44.522	39.554	1.00	8.75
ATOM	767	C	PHE	100	27.294	45.855	39.872	1.00	21.81
ATOM	768	O	PHE	100	26.599	46.775	40.308	1.00	20.31
ATOM	769	CB	PHE	100	25.927	44.572	38.226	1.00	5.94
ATOM	770	CG	PHE	100	25.537	43.183	37.764	1.00	12.75
ATOM	771	CD1	PHE	100	24.426	42.538	38.325	1.00	16.31
ATOM	772	CD2	PHE	100	26.317	42.484	36.843	1.00	15.27
ATOM	773	CE1	PHE	100	24.087	41.230	37.975	1.00	13.50

FIG. 5-19

ATOM	774	CE2	PHE	100	25.965	41.192	36.435	1.00 21.25
ATOM	775	CZ	PHE	100	24.852	40.567	37.014	1.00 21.06
ATOM	776	N	LYS	101	28.603	45.946	39.737	1.00 15.49
ATOM	777	CA	LYS	101	29.270	47.179	40.085	1.00 17.93
ATOM	778	C	LYS	101	28.732	48.349	39.287	1.00 13.71
ATOM	779	O	LYS	101	28.658	48.304	38.072	1.00 17.18
ATOM	780	CB	LYS	101	30.784	47.069	39.950	1.00 17.13
ATOM	781	CG	LYS	101	31.518	48.252	40.551	1.00 18.01
ATOM	782	CD	LYS	101	33.036	48.060	40.534	1.00 26.70
ATOM	783	CE	LYS	101	33.797	49.116	41.332	1.00 41.58
ATOM	784	N	ASP	102	28.353	49.403	39.997	1.00 18.09
ATOM	785	CA	ASP	102	27.805	50.618	39.368	1.00 23.08
ATOM	786	C	ASP	102	26.559	50.356	38.549	1.00 25.42
ATOM	787	O	ASP	102	26.292	51.061	37.586	1.00 23.34
ATOM	788	CB	ASP	102	28.840	51.369	38.516	1.00 26.27
ATOM	789	CG	ASP	102	30.109	51.629	39.296	1.00 57.01
ATOM	790	OD1	ASP	102	31.206	51.233	38.931	1.00 63.33
ATOM	791	OD2	ASP	102	29.886	52.200	40.464	1.00 47.66
ATOM	792	N	ASP	103	25.813	49.328	38.933	1.00 20.17
ATOM	793	CA	ASP	103	24.602	48.949	38.233	1.00 15.70
ATOM	794	C	ASP	103	23.608	48.284	39.189	1.00 18.47
ATOM	795	O	ASP	103	23.749	48.431	40.409	1.00 17.72
ATOM	796	CB	ASP	103	24.899	48.085	36.995	1.00 19.89
ATOM	797	CG	ASP	103	23.946	48.387	35.860	1.00 23.93
ATOM	798	OD1	ASP	103	24.238	48.274	34.688	1.00 19.05
ATOM	799	OD2	ASP	103	22.774	48.809	36.283	1.00 23.89
ATOM	800	N	GLY	104	22.612	47.542	38.646	1.00 20.17
ATOM	801	CA	GLY	104	21.598	46.900	39.498	1.00 20.22
ATOM	802	C	GLY	104	22.055	45.619	40.180	1.00 24.68
ATOM	803	O	GLY	104	23.202	45.211	40.085	1.00 18.06
ATOM	804	N	ASN	105	21.125	44.967	40.872	1.00 15.71
ATOM	805	CA	ASN	105	21.425	43.703	41.510	1.00 8.89
ATOM	806	C	ASN	105	20.399	42.620	41.181	1.00 21.85
ATOM	807	O	ASN	105	19.255	42.911	40.824	1.00 15.17
ATOM	808	CB	ASN	105	21.605	43.840	43.001	1.00 8.58
ATOM	809	CG	ASN	105	20.359	44.366	43.697	1.00 43.57
ATOM	810	OD1	ASN	105	19.565	43.601	44.259	1.00 36.67
ATOM	811	ND2	ASN	105	20.178	45.674	43.659	1.00 36.47
ATOM	812	N	TYR	106	20.826	41.365	41.328	1.00 16.80
ATOM	813	CA	TYR	106	19.966	40.219	41.156	1.00 13.90
ATOM	814	C	TYR	106	19.763	39.543	42.475	1.00 11.05

FIG. 5-20

ATOM	815	O	TYR	106	20.678	39.404	43.281	1.00 13.86
ATOM	816	CB	TYR	106	20.547	39.128	40.246	1.00 15.88
ATOM	817	CG	TYR	106	20.619	39.398	38.793	1.00 15.57
ATOM	818	CD1	TYR	106	19.952	40.458	38.178	1.00 13.14
ATOM	819	CD2	TYR	106	21.373	38.524	38.006	1.00 13.35
ATOM	820	CE1	TYR	106	20.038	40.632	36.793	1.00 13.44
ATOM	821	CE2	TYR	106	21.481	38.692	36.628	1.00 10.87
ATOM	822	CZ	TYR	106	20.814	39.751	36.025	1.00 15.93
ATOM	823	OH	TYR	106	20.970	39.931	34.670	1.00 17.32
ATOM	824	N	LYS	107	18.538	39.115	42.709	1.00 12.39
ATOM	825	CA	LYS	107	18.194	38.349	43.897	1.00 11.51
ATOM	826	C	LYS	107	17.619	37.037	43.397	1.00 17.25
ATOM	827	O	LYS	107	16.704	37.010	42.562	1.00 13.14
ATOM	828	CB	LYS	107	17.217	39.063	44.823	1.00 14.82
ATOM	829	CG	LYS	107	17.860	39.631	46.060	1.00 40.71
ATOM	830	CD	LYS	107	18.528	40.974	45.793	1.00 43.48
ATOM	831	N	THR	108	18.205	35.951	43.835	1.00 14.95
ATOM	832	CA	THR	108	17.774	34.658	43.352	1.00 11.97
ATOM	833	C	THR	108	17.463	33.696	44.468	1.00 15.81
ATOM	834	O	THR	108	18.043	33.734	45.582	1.00 18.68
ATOM	835	CB	THR	108	18.847	34.034	42.410	1.00 23.81
ATOM	836	OG1	THR	108	20.064	33.791	43.137	1.00 13.88
ATOM	837	CG2	THR	108	19.123	34.968	41.264	1.00 13.04
ATOM	838	N	ARG	109	16.560	32.804	44.154	1.00 13.57
ATOM	839	CA	ARG	109	16.212	31.751	45.048	1.00 12.56
ATOM	840	C	ARG	109	15.939	30.498	44.254	1.00 13.07
ATOM	841	O	ARG	109	15.239	30.509	43.249	1.00 12.52
ATOM	842	CB	ARG	109	15.069	32.100	45.959	1.00 17.32
ATOM	843	CG	ARG	109	14.767	30.995	46.932	1.00 17.92
ATOM	844	CD	ARG	109	13.400	31.160	47.610	1.00 19.99
ATOM	845	NE	ARG	109	12.821	29.854	47.883	1.00 36.05
ATOM	846	CZ	ARG	109	12.968	29.244	49.035	1.00 55.71
ATOM	847	NH1	ARG	109	13.630	29.815	50.046	1.00 44.11
ATOM	848	NH2	ARG	109	12.432	28.041	49.195	1.00 94.34
ATOM	849	N	ALA	110	16.577	29.414	44.635	1.00 13.26
ATOM	850	CA	ALA	110	16.377	28.207	43.870	1.00 12.68
ATOM	851	C	ALA	110	16.346	26.979	44.734	1.00 13.15
ATOM	852	O	ALA	110	16.829	26.965	45.869	1.00 16.75
ATOM	853	CB	ALA	110	17.465	28.059	42.822	1.00 17.31
ATOM	854	N	GLU	111	15.770	25.939	44.176	1.00 15.39
ATOM	855	CA	GLU	111	15.741	24.655	44.823	1.00 15.24

FIG. 5-21

ATOM	856	C	GLU	111	16.438	23.678	43.926	1.00	12.08
ATOM	857	O	GLU	111	16.086	23.545	42.771	1.00	15.70
ATOM	858	CB	GLU	111	14.303	24.123	44.993	1.00	19.20
ATOM	859	CG	GLU	111	13.744	24.242	46.399	1.00	38.62
ATOM	860	CD	GLU	111	12.247	24.280	46.372	1.00	60.99
ATOM	861	OE1	GLU	111	11.589	23.843	45.432	1.00	76.05
ATOM	862	OE2	GLU	111	11.742	24.956	47.380	1.00	54.87
ATOM	863	N	VAL	112	17.438	22.965	44.457	1.00	10.78
ATOM	864	CA	VAL	112	18.063	21.978	43.631	1.00	10.98
ATOM	865	C	VAL	112	17.968	20.630	44.261	1.00	8.62
ATOM	866	O	VAL	112	18.271	20.438	45.432	1.00	15.63
ATOM	867	CB	VAL	112	19.428	22.358	43.012	1.00	22.75
ATOM	868	CG1	VAL	112	19.966	23.704	43.487	1.00	16.69
ATOM	869	CG2	VAL	112	20.452	21.232	43.078	1.00	18.47
ATOM	870	N	LYS	113	17.415	19.732	43.516	1.00	14.67
ATOM	871	CA	LYS	113	17.175	18.421	44.045	1.00	16.41
ATOM	872	C	LYS	113	16.822	17.485	42.931	1.00	7.11
ATOM	873	O	LYS	113	16.695	17.893	41.808	1.00	16.27
ATOM	874	CB	LYS	113	16.032	18.497	45.036	1.00	22.50
ATOM	875	CG	LYS	113	14.792	19.084	44.376	1.00	20.40
ATOM	876	CD	LYS	113	13.509	18.321	44.703	1.00	44.65
ATOM	877	CE	LYS	113	12.526	19.134	45.528	1.00	54.02
ATOM	878	NZ	LYS	113	12.379	20.518	45.036	1.00	100.00
ATOM	879	N	PHE	114	16.683	16.208	43.267	1.00	10.09
ATOM	880	CA	PHE	114	16.325	15.175	42.317	1.00	11.41
ATOM	881	C	PHE	114	14.806	14.975	42.181	1.00	14.18
ATOM	882	O	PHE	114	14.110	14.878	43.160	1.00	15.03
ATOM	883	CB	PHE	114	16.866	13.838	42.838	1.00	12.89
ATOM	884	CG	PHE	114	18.231	13.536	42.338	1.00	16.80
ATOM	885	CD1	PHE	114	19.344	13.795	43.139	1.00	18.61
ATOM	886	CD2	PHE	114	18.403	13.009	41.056	1.00	19.50
ATOM	887	CE1	PHE	114	20.627	13.500	42.665	1.00	22.78
ATOM	888	CE2	PHE	114	19.673	12.708	40.572	1.00	25.36
ATOM	889	CZ	PHE	114	20.780	12.953	41.387	1.00	23.99
ATOM	890	N	GLU	115	14.354	14.819	40.966	1.00	15.29
ATOM	891	CA	GLU	115	12.978	14.473	40.642	1.00	11.40
ATOM	892	C	GLU	115	13.121	13.193	39.906	1.00	13.30
ATOM	893	O	GLU	115	13.434	13.207	38.730	1.00	18.72
ATOM	894	CB	GLU	115	12.348	15.481	39.667	1.00	9.68
ATOM	895	CG	GLU	115	11.856	16.747	40.376	1.00	19.54
ATOM	896	CD	GLU	115	10.742	16.460	41.342	1.00	38.12

FIG. 5-22

ATOM	897	OE1	GLU	115	10.181	15.395	41.431	1.00 34.84
ATOM	898	OE2	GLU	115	10.460	17.461	42.079	1.00 27.88
ATOM	899	N	GLY	116	13.005	12.087	40.585	1.00 14.51
ATOM	900	CA	GLY	116	13.225	10.861	39.869	1.00 15.91
ATOM	901	C	GLY	116	14.727	10.767	39.641	1.00 23.59
ATOM	902	O	GLY	116	15.516	10.922	40.570	1.00 19.35
ATOM	903	N	ASP	117	15.137	10.564	38.439	1.00 20.26
ATOM	904	CA	ASP	117	16.572	10.462	38.233	1.00 28.00
ATOM	905	C	ASP	117	17.237	11.677	37.598	1.00 22.39
ATOM	906	O	ASP	117	18.423	11.672	37.265	1.00 21.38
ATOM	907	CB	ASP	117	17.055	9.074	37.733	1.00 33.06
ATOM	908	CG	ASP	117	16.624	8.677	36.348	1.00 55.04
ATOM	909	OD1	ASP	117	16.230	9.468	35.495	1.00 59.57
ATOM	910	OD2	ASP	117	16.805	7.391	36.130	1.00 82.48
ATOM	911	N	THR	118	16.463	12.729	37.493	1.00 19.62
ATOM	912	CA	THR	118	16.889	13.981	36.910	1.00 18.21
ATOM	913	C	THR	118	17.186	14.988	37.976	1.00 18.92
ATOM	914	O	THR	118	16.498	15.064	38.996	1.00 15.94
ATOM	915	CB	THR	118	15.806	14.497	35.952	1.00 19.03
ATOM	916	OG1	THR	118	15.552	13.508	34.990	1.00 21.42
ATOM	917	CG2	THR	118	16.217	15.793	35.275	1.00 15.49
ATOM	918	N	LEU	119	18.284	15.681	37.805	1.00 13.66
ATOM	919	CA	LEU	119	18.679	16.706	38.759	1.00 13.50
ATOM	920	C	LEU	119	18.036	17.992	38.269	1.00 8.81
ATOM	921	O	LEU	119	18.194	18.368	37.091	1.00 12.49
ATOM	922	CB	LEU	119	20.243	16.815	38.839	1.00 12.25
ATOM	923	CG	LEU	119	20.845	17.678	39.951	1.00 3.90
ATOM	924	CD1	LEU	119	20.701	19.167	39.669	1.00 10.11
ATOM	925	CD2	LEU	119	20.366	17.311	41.333	1.00 7.86
ATOM	926	N	VAL	120	17.230	18.595	39.170	1.00 13.34
ATOM	927	CA	VAL	120	16.466	19.797	38.859	1.00 13.77
ATOM	928	C	VAL	120	16.929	21.039	39.587	1.00 8.56
ATOM	929	O	VAL	120	17.135	21.039	40.762	1.00 13.32
ATOM	930	CB	VAL	120	14.939	19.566	39.082	1.00 17.60
ATOM	931	CG1	VAL	120	14.133	20.790	38.642	1.00 17.58
ATOM	932	CG2	VAL	120	14.501	18.351	38.246	1.00 15.35
ATOM	933	N	ASN	121	17.067	22.111	38.839	1.00 12.24
ATOM	934	CA	ASN	121	17.424	23.405	39.400	1.00 11.78
ATOM	935	C	ASN	121	16.301	24.382	39.060	1.00 11.18
ATOM	936	O	ASN	121	16.195	24.802	37.934	1.00 11.09
ATOM	937	CB	ASN	121	18.753	23.928	38.791	1.00 11.41

FIG. 5-23

ATOM	938	CG	ASN	121	19.201	25.261	39.367	1.00 11.07
ATOM	939	OD	ASN	121	18.773	25.654	40.461	1.00 12.06
ATOM	940	ND2	ASN	121	20.124	25.938	38.670	1.00 11.90
ATOM	941	N	ARG	122	15.470	24.706	40.029	1.00 13.69
ATOM	942	CA	ARG	122	14.348	25.610	39.825	1.00 12.99
ATOM	943	C	ARG	122	14.622	26.946	40.498	1.00 5.89
ATOM	944	O	ARG	122	14.749	27.011	41.723	1.00 14.47
ATOM	945	CB	ARG	122	13.068	25.025	40.417	1.00 15.99
ATOM	946	CG	ARG	122	12.478	23.921	39.589	1.00 30.23
ATOM	947	CD	ARG	122	11.282	23.244	40.281	1.00 60.61
ATOM	948	N	ILE	123	14.663	27.992	39.680	1.00 11.46
ATOM	949	CA	ILE	123	15.030	29.340	40.095	1.00 11.86
ATOM	950	C	ILE	123	13.991	30.450	39.835	1.00 10.54
ATOM	951	O	ILE	123	13.370	30.535	38.765	1.00 12.83
ATOM	952	CB	ILE	123	16.296	29.757	39.292	1.00 15.41
ATOM	953	CG1	ILE	123	17.316	28.585	39.180	1.00 12.27
ATOM	954	CG2	ILE	123	16.944	30.993	39.918	1.00 14.01
ATOM	955	CD1	ILE	123	17.652	28.242	37.743	1.00 7.74
ATOM	956	N	GLU	124	13.953	31.358	40.793	1.00 11.36
ATOM	957	CA	GLU	124	13.189	32.752	40.700	1.00 15.20
ATOM	958	C	GLU	124	14.168	33.713	40.811	1.00 11.93
ATOM	959	O	GLU	124	14.919	33.797	41.780	1.00 15.61
ATOM	960	CB	GLU	124	12.028	32.677	41.751	1.00 19.74
ATOM	961	CG	GLU	124	12.387	33.337	43.089	1.00 72.94
ATOM	962	N	LEU	125	14.183	34.550	39.808	1.00 12.19
ATOM	963	CA	LEU	125	15.092	35.654	39.767	1.00 15.00
ATOM	964	C	LEU	125	14.420	37.011	39.722	1.00 19.35
ATOM	965	O	LEU	125	13.563	37.267	38.893	1.00 18.41
ATOM	966	CB	LEU	125	15.976	35.533	38.510	1.00 14.29
ATOM	967	CG	LEU	125	17.003	36.683	38.375	1.00 17.65
ATOM	968	CD1	LEU	125	18.302	36.083	37.849	1.00 13.46
ATOM	969	CD2	LEU	125	16.511	37.732	37.367	1.00 12.09
ATOM	970	N	LYS	126	14.890	37.897	40.554	1.00 12.73
ATOM	971	CA	LYS	126	14.391	39.260	40.579	1.00 15.92
ATOM	972	C	LYS	126	15.563	40.276	40.445	1.00 18.53
ATOM	973	O	LYS	126	16.489	40.246	41.246	1.00 19.86
ATOM	974	CB	LYS	126	13.611	39.487	41.877	1.00 17.31
ATOM	975	CG	LYS	126	12.853	40.786	41.923	1.00 33.94
ATOM	976	CD	LYS	126	11.366	40.601	41.675	1.00 60.87
ATOM	977	CE	LYS	126	10.652	41.929	41.521	1.00 52.70
ATOM	978	NZ	LYS	126	11.229	42.988	42.367	1.00 47.22

FIG. 5-24

ATOM	979	N	GLY	127	15.514	41.127	39.411	1.00 18.71
ATOM	980	CA	GLY	127	16.551	42.151	39.121	1.00 17.32
ATOM	981	C	GLY	127	16.012	43.572	39.272	1.00 25.32
ATOM	982	O	GLY	127	14.981	43.908	38.693	1.00 20.14
ATOM	983	N	ILE	128	16.706	44.404	40.070	1.00 18.42
ATOM	984	CA	ILE	128	16.282	45.787	40.243	1.00 21.04
ATOM	985	C	ILE	128	17.405	46.789	40.196	1.00 25.93
ATOM	986	O	ILE	128	18.562	46.496	40.429	1.00 19.37
ATOM	987	CB	ILE	128	15.482	46.052	41.504	1.00 23.82
ATOM	988	CG1	ILE	128	16.408	45.888	42.701	1.00 23.86
ATOM	989	CG2	ILE	128	14.272	45.120	41.577	1.00 28.95
ATOM	990	CD1	ILE	128	15.824	46.391	44.013	1.00 29.89
ATOM	991	N	ASP	129	16.999	48.002	39.918	1.00 20.26
ATOM	992	CA	ASP	129	17.861	49.124	39.882	1.00 18.53
ATOM	993	C	ASP	129	18.864	49.086	38.801	1.00 20.36
ATOM	994	O	ASP	129	19.949	49.632	38.953	1.00 24.28
ATOM	995	CB	ASP	129	18.498	49.407	41.253	1.00 20.57
ATOM	996	CG	ASP	129	17.545	50.077	42.226	1.00 43.70
ATOM	997	OD1	ASP	129	16.653	50.842	41.883	1.00 49.42
ATOM	998	OD2	ASP	129	17.770	49.740	43.475	1.00 38.07
ATOM	999	N	PHE	130	18.510	48.493	37.693	1.00 16.40
ATOM	1000	CA	PHE	130	19.433	48.459	36.563	1.00 16.99
ATOM	1001	C	PHE	130	19.330	49.732	35.576	1.00 35.37
ATOM	1002	O	PHE	130	18.242	50.318	35.623	1.00 27.34
ATOM	1003	CB	PHE	130	19.248	47.223	35.657	1.00 18.07
ATOM	1004	CG	PHE	130	19.809	45.980	36.312	1.00 19.10
ATOM	1005	CD1	PHE	130	19.021	45.210	37.171	1.00 16.15
ATOM	1006	CD2	PHE	130	21.126	45.572	36.073	1.00 19.17
ATOM	1007	CE1	PHE	130	19.536	44.074	37.801	1.00 23.37
ATOM	1008	CE2	PHE	130	21.665	44.445	36.703	1.00 21.11
ATOM	1009	CZ	PHE	130	20.867	43.703	37.575	1.00 22.13
ATOM	1010	N	LYS	131	20.464	50.169	35.218	1.00 31.09
ATOM	1011	CA	LYS	131	20.477	51.371	34.400	1.00 27.52
ATOM	1012	C	LYS	131	20.105	51.045	32.992	1.00 25.57
ATOM	1013	O	LYS	131	20.695	50.169	32.343	1.00 22.97
ATOM	1014	CB	LYS	131	21.796	52.109	34.438	1.00 32.64
ATOM	1015	CG	LYS	131	22.153	52.633	35.813	1.00 38.34
ATOM	1016	CD	LYS	131	23.646	52.886	35.975	1.00 75.76
ATOM	1017	N	GLU	132	19.116	51.751	32.509	1.00 26.88
ATOM	1018	CA	GLU	132	18.623	51.484	31.189	1.00 28.42
ATOM	1019	C	GLU	132	19.710	51.514	30.140	1.00 36.19

FIG. 5-25

ATOM	1020	O	GLU	132	19.617	50.862	29.101	1.00 39.24
ATOM	1021	CB	GLU	132	17.374	52.331	30.830	1.00 29.04
ATOM	1022	N	ASP	133	20.752	52.254	30.438	1.00 40.08
ATOM	1023	CA	ASP	133	21.883	52.442	29.525	1.00 45.36
ATOM	1024	C	ASP	133	23.224	51.861	30.049	1.00 50.61
ATOM	1025	O	ASP	133	24.299	52.243	29.572	1.00 52.14
ATOM	1026	CB	ASP	133	22.063	53.946	29.332	1.00 50.45
ATOM	1027	CG	ASP	133	22.109	54.642	30.670	1.00 87.10
ATOM	1028	OD1	ASP	133	21.408	54.314	31.624	1.00 91.27
ATOM	1029	OD2	ASP	133	23.047	55.552	30.739	1.00 100.00
ATOM	1030	N	GLY	134	23.159	50.970	31.053	1.00 37.06
ATOM	1031	CA	GLY	134	24.349	50.376	31.639	1.00 30.22
ATOM	1032	C	GLY	134	24.845	49.228	30.803	1.00 23.10
ATOM	1033	O	GLY	134	24.360	48.990	29.685	1.00 19.23
ATOM	1034	N	ASN	135	25.807	48.486	31.341	1.00 18.66
ATOM	1035	CA	ASN	135	26.339	47.370	30.563	1.00 18.03
ATOM	1036	C	ASN	135	25.372	46.199	30.406	1.00 15.75
ATOM	1037	O	ASN	135	25.485	45.430	29.461	1.00 16.03
ATOM	1038	CB	ASN	135	27.665	46.883	31.139	1.00 19.27
ATOM	1039	CG	ASN	135	28.743	47.943	31.108	1.00 20.99
ATOM	1040	OD1	ASN	135	28.969	48.595	30.078	1.00 25.69
ATOM	1041	ND2	ASN	135	29.423	48.095	32.239	1.00 22.57
ATOM	1042	N	ILE	136	24.444	46.052	31.362	1.00 18.14
ATOM	1043	CA	ILE	136	23.494	44.924	31.368	1.00 19.78
ATOM	1044	C	ILE	136	22.331	45.086	30.384	1.00 23.76
ATOM	1045	O	ILE	136	22.178	44.313	29.395	1.00 22.53
ATOM	1046	CB	ILE	136	23.078	44.500	32.804	1.00 21.24
ATOM	1047	CG1	ILE	136	24.230	43.728	33.423	1.00 28.44
ATOM	1048	CG2	ILE	136	21.899	43.543	32.770	1.00 22.77
ATOM	1049	CD1	ILE	136	25.346	44.596	33.935	1.00 12.39
ATOM	1050	N	LEU	137	21.543	46.117	30.640	1.00 18.21
ATOM	1051	CA	LEU	137	20.394	46.415	29.815	1.00 23.30
ATOM	1052	C	LEU	137	20.828	46.875	28.470	1.00 27.26
ATOM	1053	O	LEU	137	20.181	46.619	27.488	1.00 27.00
ATOM	1054	CB	LEU	137	19.442	47.430	30.490	1.00 21.74
ATOM	1055	CG	LEU	137	18.828	46.852	31.762	1.00 22.56
ATOM	1056	CD1	LEU	137	17.856	47.837	32.415	1.00 22.27
ATOM	1057	CD2	LEU	137	18.118	45.554	31.424	1.00 37.52
ATOM	1058	N	GLY	138	21.979	47.527	28.432	1.00 22.14
ATOM	1059	CA	GLY	138	22.510	48.033	27.187	1.00 20.03
ATOM	1060	C	GLY	138	23.157	46.959	26.368	1.00 20.16

FIG. 5-26

ATOM	1061 O	GLY	138	23.600	47.202	25.264	1.00 22.44
ATOM	1062 N	HIS	139	23.246	45.756	26.903	1.00 18.27
ATOM	1063 CA	HIS	139	23.859	44.655	26.148	1.00 20.24
ATOM	1064 C	HIS	139	25.301	44.929	25.616	1.00 20.13
ATOM	1065 O	HIS	139	25.605	44.745	24.439	1.00 17.97
ATOM	1066 CB	HIS	139	22.931	44.207	25.018	1.00 22.20
ATOM	1067 CG	HIS	139	21.708	43.551	25.550	1.00 25.52
ATOM	1068 ND1	HIS	139	21.666	42.182	25.785	1.00 25.67
ATOM	1069 CD2	HIS	139	20.525	44.092	25.927	1.00 28.09
ATOM	1070 CE1	HIS	139	20.474	41.918	26.275	1.00 27.50
ATOM	1071 NE2	HIS	139	19.766	43.044	26.382	1.00 29.53
ATOM	1072 N	LYS	140	26.187	45.311	26.525	1.00 23.51
ATOM	1073 CA	LYS	140	27.569	45.638	26.197	1.00 25.82
ATOM	1074 C	LYS	140	28.600	44.537	26.560	1.00 26.28
ATOM	1075 O	LYS	140	29.824	44.730	26.391	1.00 22.29
ATOM	1076 CB	LYS	140	27.977	46.937	26.911	1.00 27.56
ATOM	1077 CG	LYS	140	27.269	48.217	26.445	1.00 31.19
ATOM	1078 CD	LYS	140	27.234	49.254	27.582	1.00 51.32
ATOM	1079 CE	LYS	140	26.924	50.696	27.169	1.00 47.92
ATOM	1080 NZ	LYS	140	27.112	51.663	28.284	1.00 73.76
ATOM	1081 N	LEU	141	28.116	43.403	27.115	1.00 19.33
ATOM	1082 CA	LEU	141	28.987	42.296	27.559	1.00 14.32
ATOM	1083 C	LEU	141	29.366	41.401	26.427	1.00 20.75
ATOM	1084 O	LEU	141	28.526	41.087	25.620	1.00 19.01
ATOM	1085 CB	LEU	141	28.313	41.488	28.676	1.00 12.53
ATOM	1086 CG	LEU	141	27.979	42.352	29.875	1.00 17.54
ATOM	1087 CD1	LEU	141	27.700	41.469	31.070	1.00 24.81
ATOM	1088 CD2	LEU	141	29.116	43.310	30.182	1.00 27.50
ATOM	1089 N	GLU	142	30.644	40.987	26.346	1.00 14.76
ATOM	1090 CA	GLU	142	31.040	40.059	25.311	1.00 13.43
ATOM	1091 C	GLU	142	30.462	38.691	25.641	1.00 15.69
ATOM	1092 O	GLU	142	30.175	38.393	26.787	1.00 16.43
ATOM	1093 CB	GLU	142	32.558	39.866	25.204	1.00 14.73
ATOM	1094 CG	GLU	142	33.290	41.077	24.624	1.00 29.30
ATOM	1095 CD	GLU	142	34.787	41.003	24.825	1.00 56.32
ATOM	1096 OE1	GLU	142	35.340	40.098	25.420	1.00 31.70
ATOM	1097 OE2	GLU	142	35.430	42.015	24.321	1.00 34.10
ATOM	1098 N	TYR	143	30.365	37.873	24.632	1.00 16.30
ATOM	1099 CA	TYR	143	29.837	36.542	24.764	1.00 20.04
ATOM	1100 C	TYR	143	30.925	35.559	25.049	1.00 12.46
ATOM	1101 O	TYR	143	31.327	34.792	24.193	1.00 16.99

FIG. 5-27

ATOM	1102 CB	TYR	143	29.035	36.118	23.498	1.00 20.96
ATOM	1103 CG	TYR	143	28.187	34.857	23.674	1.00 16.12
ATOM	1104 CD1	TYR	143	27.040	34.859	24.472	1.00 18.24
ATOM	1105 CD2	TYR	143	28.512	33.684	22.986	1.00 12.87
ATOM	1106 CE1	TYR	143	26.257	33.708	24.615	1.00 17.91
ATOM	1107 CE2	TYR	143	27.735	32.530	23.104	1.00 16.58
ATOM	1108 CZ	TYR	143	26.603	32.551	23.914	1.00 17.35
ATOM	1109 OH	TYR	143	25.861	31.432	24.035	1.00 23.40
ATOM	1110 N	ASN	144	31.392	35.597	26.251	1.00 12.40
ATOM	1111 CA	ASN	144	32.428	34.703	26.689	1.00 12.05
ATOM	1112 C	ASN	144	32.433	34.675	28.193	1.00 15.75
ATOM	1113 O	ASN	144	31.637	35.369	28.837	1.00 14.58
ATOM	1114 CB	ASN	144	33.823	35.038	26.068	1.00 18.45
ATOM	1115 CG	ASN	144	34.310	36.445	26.374	1.00 18.98
ATOM	1116 OD1	ASN	144	34.150	36.951	27.488	1.00 20.34
ATOM	1117 ND2	ASN	144	34.891	37.085	25.382	1.00 23.02
ATOM	1118 N	TYR	145	33.311	33.876	28.773	1.00 12.16
ATOM	1119 CA	TYR	145	33.343	33.765	30.195	1.00 10.63
ATOM	1120 C	TYR	145	34.765	33.458	30.730	1.00 14.58
ATOM	1121 O	TYR	145	35.510	32.751	30.090	1.00 18.83
ATOM	1122 CB	TYR	145	32.404	32.627	30.571	1.00 9.76
ATOM	1123 CG	TYR	145	31.698	32.916	31.826	1.00 11.86
ATOM	1124 CD1	TYR	145	30.515	33.658	31.808	1.00 9.04
ATOM	1125 CD2	TYR	145	32.188	32.419	33.030	1.00 10.07
ATOM	1126 CE1	TYR	145	29.860	33.948	32.999	1.00 8.36
ATOM	1127 CE2	TYR	145	31.544	32.707	34.235	1.00 15.32
ATOM	1128 CZ	TYR	145	30.375	33.469	34.206	1.00 11.69
ATOM	1129 OH	TYR	145	29.730	33.735	35.376	1.00 15.23
ATOM	1130 N	ASN	146	35.086	33.931	31.933	1.00 15.36
ATOM	1131 CA	ASN	146	36.415	33.737	32.560	1.00 17.00
ATOM	1132 C	ASN	146	36.426	32.618	33.589	1.00 19.68
ATOM	1133 O	ASN	146	35.395	32.043	33.848	1.00 14.71
ATOM	1134 CB	ASN	146	36.844	35.062	33.235	1.00 11.89
ATOM	1135 CG	ASN	146	37.013	36.147	32.215	1.00 35.45
ATOM	1136 OD1	ASN	146	37.533	35.890	31.105	1.00 31.63
ATOM	1137 ND2	ASN	146	36.547	37.349	32.553	1.00 19.74
ATOM	1138 N	SER	147	37.630	32.338	34.201	1.00 12.09
ATOM	1139 CA	SER	147	37.804	31.320	35.266	1.00 8.55
ATOM	1140 C	SER	147	37.769	31.999	36.575	1.00 11.70
ATOM	1141 O	SER	147	38.219	33.125	36.671	1.00 16.56
ATOM	1142 CB	SER	147	39.148	30.540	35.129	1.00 9.87
ATOM	1143 OG	SER	147	39.212	29.980	33.828	1.00 33.20

FIG. 5-28

ATOM	1144	N	HIS	148	37.195	31.365	37.583	1.00 5.53
ATOM	1145	CA	HIS	148	37.090	31.998	38.850	1.00 8.06
ATOM	1146	C	HIS	148	37.346	31.038	39.949	1.00 11.30
ATOM	1147	O	HIS	148	37.328	29.844	39.754	1.00 16.87
ATOM	1148	CB	HIS	148	35.648	32.608	39.067	1.00 11.29
ATOM	1149	CG	HIS	148	35.215	33.554	37.972	1.00 10.84
ATOM	1150	ND1	HIS	148	34.548	33.121	36.836	1.00 12.77
ATOM	1151	CD2	HIS	148	35.403	34.887	37.851	1.00 8.82
ATOM	1152	CE1	HIS	148	34.389	34.178	36.060	1.00 8.84
ATOM	1153	NE2	HIS	148	34.882	35.242	36.647	1.00 8.82
ATOM	1154	N	ASN	149	37.534	31.579	41.125	1.00 10.80
ATOM	1155	CA	ASN	149	37.626	30.805	42.345	1.00 13.35
ATOM	1156	C	ASN	149	36.409	31.157	43.205	1.00 14.47
ATOM	1157	O	ASN	149	36.099	32.320	43.387	1.00 18.17
ATOM	1158	CB	ASN	149	38.890	31.093	43.184	1.00 12.67
ATOM	1159	CG	ASN	149	40.148	30.822	42.424	1.00 20.21
ATOM	1160	OD1	ASN	149	40.993	31.713	42.281	1.00 56.34
ATOM	1161	ND2	ASN	149	40.210	29.641	41.818	1.00 16.44
ATOM	1162	N	VAL	150	35.773	30.144	43.741	1.00 14.65
ATOM	1163	CA	VAL	150	34.588	30.262	44.552	1.00 12.92
ATOM	1164	C	VAL	150	34.910	29.806	45.943	1.00 16.30
ATOM	1165	O	VAL	150	35.257	28.665	46.147	1.00 17.83
ATOM	1166	CB	VAL	150	33.482	29.382	43.914	1.00 15.22
ATOM	1167	CG1	VAL	150	32.252	29.297	44.765	1.00 14.09
ATOM	1168	CG2	VAL	150	33.172	29.791	42.464	1.00 10.94
ATOM	1169	N	TYR	151	34.796	30.716	46.900	1.00 17.64
ATOM	1170	CA	TYR	151	35.139	30.440	48.275	1.00 18.31
ATOM	1171	C	TYR	151	34.003	29.917	49.117	1.00 24.35
ATOM	1172	O	TYR	151	32.963	30.536	49.239	1.00 20.83
ATOM	1173	CB	TYR	151	35.793	31.681	48.920	1.00 20.15
ATOM	1174	CG	TYR	151	37.025	32.033	48.141	1.00 25.86
ATOM	1175	CD1	TYR	151	37.003	32.989	47.127	1.00 26.00
ATOM	1176	CD2	TYR	151	38.200	31.315	48.355	1.00 28.66
ATOM	1177	CE1	TYR	151	38.151	33.234	46.369	1.00 33.73
ATOM	1178	CE2	TYR	151	39.360	31.550	47.619	1.00 29.01
ATOM	1179	CZ	TYR	151	39.325	32.512	46.618	1.00 29.55
ATOM	1180	OH	TYR	151	40.449	32.737	45.877	1.00 38.69
ATOM	1181	N	ILE	152	34.250	28.791	49.753	1.00 17.71
ATOM	1182	CA	ILE	152	33.255	28.159	50.572	1.00 14.12
ATOM	1183	C	ILE	152	33.619	28.056	52.000	1.00 18.51
ATOM	1184	O	ILE	152	34.728	27.703	52.336	1.00 22.05

FIG. 5-29

ATOM	1185 CB	ILE	152	32.979	26.776	50.060	1.00 16.66
ATOM	1186 CG1	ILE	152	32.431	26.875	48.638	1.00 11.30
ATOM	1187 CG2	ILE	152	32.017	26.078	51.021	1.00 17.96
ATOM	1188 CD1	ILE	152	32.377	25.559	47.949	1.00 13.48
ATOM	1189 N	MSE	153	32.623	28.278	52.841	1.00 17.41
ATOM	1190 AC	MSE	153	32.789	28.162	54.269	1.00 22.61
ATOM	1191 C	MSE	153	31.534	27.648	54.916	1.00 27.31
ATOM	1192 O	MSE	153	30.433	27.831	54.396	1.00 20.50
ATOM	1193 CB	MSE	153	33.145	29.490	54.855	1.00 19.11
ATOM	1194 CG	MSE	153	34.010	30.302	53.957	1.00 100.00
ATOM	1195 SE	MSE	153	34.060	32.117	54.524	1.00 100.00
ATOM	1196 CE	MSE	153	33.463	31.798	56.330	1.00 30.27
ATOM	1197 N	ALA	154	31.733	26.983	56.053	1.00 22.29
ATOM	1198 CA	ALA	154	30.669	26.389	56.796	1.00 22.66
ATOM	1199 C	ALA	154	29.820	27.401	57.552	1.00 29.00
ATOM	1200 O	ALA	154	30.274	28.457	57.960	1.00 27.02
ATOM	1201 CB	ALA	154	31.224	25.336	57.744	1.00 19.78
ATOM	1202 N	ASP	155	28.566	27.063	57.726	1.00 29.48
ATOM	1203 CA	ASP	155	27.669	27.887	58.484	1.00 32.18
ATOM	1204 C	ASP	155	26.976	27.019	59.511	1.00 44.51
ATOM	1205 O	ASP	155	25.898	26.492	59.274	1.00 39.56
ATOM	1206 CB	ASP	155	26.659	28.617	57.597	1.00 31.70
ATOM	1207 CG	ASP	155	26.140	29.851	58.247	1.00 49.89
ATOM	1208 OD1	ASP	155	26.595	30.297	59.277	1.00 46.67
ATOM	1209 OD2	ASP	155	25.187	30.422	57.565	1.00 76.07
ATOM	1210 N	LYS	156	27.646	26.816	60.629	1.00 46.37
ATOM	1211 CA	LYS	156	27.116	25.954	61.654	1.00 53.23
ATOM	1212 C	LYS	156	25.750	26.369	62.224	1.00 65.62
ATOM	1213 O	LYS	156	25.012	25.520	62.703	1.00 65.54
ATOM	1214 CB	LYS	156	28.147	25.612	62.725	1.00 59.51
ATOM	1215 N	GLN	157	25.398	27.655	62.138	1.00 68.32
ATOM	1216 CA	GLN	157	24.119	28.135	62.670	1.00 73.00
ATOM	1217 C	GLN	157	22.891	27.767	61.817	1.00 87.53
ATOM	1218 O	GLN	157	21.778	27.547	62.325	1.00 96.16
ATOM	1219 N	LYS	158	23.095	27.725	60.506	1.00 72.49
ATOM	1220 CA	LYS	158	22.040	27.386	59.593	1.00 66.19
ATOM	1221 C	LYS	158	22.235	25.985	59.040	1.00 58.21
ATOM	1222 O	LYS	158	21.447	25.524	58.226	1.00 59.85
ATOM	1223 N	ASN	159	23.303	25.294	59.502	1.00 40.00
ATOM	1224 CA	ASN	159	23.582	23.944	59.012	1.00 36.67
ATOM	1225 C	ASN	159	23.755	24.002	57.500	1.00 34.11

FIG. 5-30

ATOM	1226	CO	ASN	159	23.223	23.167	56.754	1.00 31.69
ATOM	1227	CB	ASN	159	22.431	22.952	59.367	1.00 46.42
ATOM	1228	CG	ASN	159	22.842	21.485	59.428	1.00 80.46
ATOM	1229	OD1	ASN	159	23.850	21.121	60.054	1.00 100.00
ATOM	1230	ND2	ASN	159	22.003	20.620	58.854	1.00 58.09
ATOM	1231	N	GLY	160	24.474	25.044	57.062	1.00 22.34
ATOM	1232	CA	GLY	160	24.686	25.247	55.663	1.00 17.58
ATOM	1233	C	GLY	160	26.055	25.791	55.433	1.00 26.75
ATOM	1234	O	GLY	160	26.960	25.664	56.271	1.00 25.57
ATOM	1235	N	ILE	161	26.200	26.395	54.277	1.00 23.28
ATOM	1236	CA	ILE	161	27.442	26.975	53.909	1.00 16.45
ATOM	1237	C	ILE	161	27.200	28.354	53.395	1.00 15.77
ATOM	1238	O	ILE	161	26.118	28.680	52.962	1.00 15.95
ATOM	1239	CB	ILE	161	28.129	26.117	52.864	1.00 19.27
ATOM	1240	CG1	ILE	161	27.237	26.016	51.619	1.00 18.53
ATOM	1241	CG2	ILE	161	28.351	24.735	53.445	1.00 21.96
ATOM	1242	CD1	ILE	161	28.009	25.614	50.350	1.00 14.44
ATOM	1243	N	LYS	162	28.226	29.169	53.471	1.00 17.86
ATOM	1244	CA	LYS	162	28.187	30.508	52.948	1.00 14.42
ATOM	1245	C	LYS	162	29.216	30.524	51.857	1.00 17.73
ATOM	1246	O	LYS	162	30.249	29.875	51.991	1.00 19.16
ATOM	1247	CB	LYS	162	28.480	31.540	54.055	1.00 18.15
ATOM	1248	CG	LYS	162	27.221	31.963	54.796	1.00 42.08
ATOM	1249	CD	LYS	162	27.493	32.787	56.039	1.00 70.42
ATOM	1250	N	VAL	163	28.911	31.176	50.759	1.00 13.74
ATOM	1251	CA	VAL	163	29.798	31.201	49.629	1.00 11.95
ATOM	1252	C	VAL	163	29.928	32.610	49.103	1.00 19.30
ATOM	1253	O	VAL	163	28.944	33.318	48.983	1.00 19.84
ATOM	1254	CB	VAL	163	29.249	30.268	48.532	1.00 15.89
ATOM	1255	CG1	VAL	163	30.105	30.277	47.261	1.00 12.09
ATOM	1256	CG2	VAL	163	29.029	28.852	49.077	1.00 15.86
ATOM	1257	N	ASN	164	31.146	32.999	48.733	1.00 14.03
ATOM	1258	CA	ASN	164	31.382	34.310	48.195	1.00 15.58
ATOM	1259	C	ASN	164	32.396	34.271	47.050	1.00 20.08
ATOM	1260	O	ASN	164	33.268	33.386	46.988	1.00 23.49
ATOM	1261	CB	ASN	164	31.732	35.325	49.308	1.00 20.52
ATOM	1262	CG	ASN	164	33.196	35.697	49.330	1.00 89.21
ATOM	1263	OD1	ASN	164	34.020	34.987	49.929	1.00 100.00
ATOM	1264	ND2	ASN	164	33.515	36.831	48.700	1.00 91.46
ATOM	1265	N	PHE	165	32.244	35.207	46.109	1.00 17.37
ATOM	1266	CA	PHE	165	33.133	35.301	44.953	1.00 10.86

FIG. 5-31

ATOM	1267 C	PHE	165	32.751	36.445	44.071	1.00 15.53
ATOM	1268 O	PHE	165	31.686	37.020	44.251	1.00 17.16
ATOM	1269 CB	PHE	165	33.207	33.960	44.187	1.00 12.86
ATOM	1270 CG	PHE	165	31.862	33.486	43.622	1.00 14.35
ATOM	1271 CD1	PHE	165	31.510	33.749	42.293	1.00 14.61
ATOM	1272 CD2	PHE	165	30.978	32.757	44.413	1.00 13.56
ATOM	1273 CE1	PHE	165	30.300	33.297	41.759	1.00 22.67
ATOM	1274 CE2	PHE	165	29.774	32.282	43.893	1.00 15.78
ATOM	1275 CZ	PHE	165	29.426	32.572	42.573	1.00 16.20
ATOM	1276 N	LYS	166	33.641	36.799	43.132	1.00 10.79
ATOM	1277 CA	LYS	166	33.417	37.864	42.162	1.00 10.74
ATOM	1278 C	LYS	166	33.603	37.344	40.774	1.00 15.95
ATOM	1279 O	LYS	166	34.602	36.727	40.470	1.00 22.80
ATOM	1280 CB	LYS	166	34.387	39.055	42.249	1.00 16.61
ATOM	1281 CG	LYS	166	34,573	39.688	43.573	1.00 18.11
ATOM	1282 CD	LYS	166	35.540	40.875	43.454	1.00 32.56
ATOM	1283 CE	LYS	166	35.272	41.966	44.476	1.00 48.19
ATOM	1284 NZ	LYS	166	34.823	41.435	45.782	1.00 85.81
ATOM	1285 N	ILE	167	32.703	37.704	39.911	1.00 9.75
ATOM	1286 CA	ILE	167	32.768	37.340	38.558	1.00 9.35
ATOM	1287 C	ILE	167	33.203	38.542	37.823	1.00 14.36
ATOM	1288 O	ILE	167	32.811	39.640	38.170	1.00 16.22
ATOM	1289 CB	ILE	167	31.379	36.929	38.005	1.00 13.16
ATOM	1290 CG1	ILE	167	30.909	35.624	38.669	1.00 13.02
ATOM	1291 CG2	ILE	167	31.423	36.786	36.472	1.00 7.91
ATOM	1292 CD1	ILE	167	31.773	34.415	38.344	1.00 19.57
ATOM	1293 N	ARG	168	34.005	38.299	36.815	1.00 12.19
ATOM	1294 CA	ARG	168	34.500	39.308	35.945	1.00 15.07
ATOM	1295 C	ARG	168	33.948	39.122	34.528	1.00 16.64
ATOM	1296 O	ARG	168	34.278	38.156	33.836	1.00 17.70
ATOM	1297 CB	ARG	168	36.024	39.287	35.944	1.00 16.54
ATOM	1298 CG	ARG	168	36.580	39.632	37.321	1.00 25.54
ATOM	1299 CD	ARG	168	37.894	38.910	37.601	1.00 63.52
ATOM	1300 NE	ARG	168	38.380	38.191	36.416	1.00 73.52
ATOM	1301 CZ	ARG	168	38.764	36.926	36.416	1.00 67.92
ATOM	1302 NH1	ARG	168	38.795	36.192	37.527	1.00 57.44
ATOM	1303 NH2	ARG	168	39.192	36.375	35.271	1.00 59.15
ATOM	1304 N	HIS	169	33.090	40.064	34.098	1.00 14.88
ATOM	1305 CA	HIS	169	32.505	40.025	32.758	1.00 13.24
ATOM	1306 C	HIS	169	33.214	41.001	31.839	1.00 12.64
ATOM	1307 O	HIS	169	33.306	42.203	32.121	1.00 14.99

FIG. 5-32

ATOM	1308	CB	HIS	169	30.970	40.374	32.760	1.00 10.46
ATOM	1309	CG	HIS	169	30.097	39.474	33.573	1.00 6.54
ATOM	1310	ND1	HIS	169	29.724	38.246	33.111	1.00 12.63
ATOM	1311	CD2	HIS	169	29.474	39.695	34.764	1.00 10.21
ATOM	1312	CE1	HIS	169	28.892	37.718	34.031	1.00 10.53
ATOM	1313	NE2	HIS	169	28.734	38.566	35.063	1.00 11.84
ATOM	1314	N	ASN	170	33.691	40.513	30.737	1.00 10.66
ATOM	1315	CA	ASN	170	34.349	41.368	29.812	1.00 15.87
ATOM	1316	C	ASN	170	33.356	42.224	29.067	1.00 25.06
ATOM	1317	O	ASN	170	32.386	41.701	28.537	1.00 16.60
ATOM	1318	CB	ASN	170	35.110	40.550	28.755	1.00 19.60
ATOM	1319	CG	ASN	170	36.245	39.717	29.312	1.00 18.70
ATOM	1320	OD1	ASN	170	36.702	38.752	28.684	1.00 48.29
ATOM	1321	ND2	ASN	170	36.695	40.073	30.480	1.00 19.13
ATOM	1322	N	ILE	171	33.662	43.527	28.947	1.00 18.75
ATOM	1323	CA	ILE	171	32.848	44.460	28.168	1.00 16.74
ATOM	1324	C	ILE	171	33.459	44.638	26.791	1.00 19.51
ATOM	1325	O	ILE	171	34.643	44.596	26.642	1.00 21.06
ATOM	1326	CB	ILE	171	32.713	45.804	28.842	1.00 20.46
ATOM	1327	CG1	ILE	171	32.089	45.617	30.193	1.00 24.79
ATOM	1328	CG2	ILE	171	31.852	46.727	27.997	1.00 19.03
ATOM	1329	CD1	ILE	171	32.630	46.599	31.229	1.00 41.65
ATOM	1330	N	GLU	172	32.632	44.818	25.804	1.00 16.54
ATOM	1331	CA	GLU	172	33.034	44.933	24.420	1.00 17.00
ATOM	1332	C	GLU	172	34.110	45.967	24.147	1.00 26.80
ATOM	1333	O	GLU	172	34.776	45.898	23.125	1.00 29.20
ATOM	1334	CB	GLU	172	31.813	45.165	23.509	1.00 22.46
ATOM	1335	CG	GLU	172	31.122	46.531	23.786	1.00 58.53
ATOM	1336	CD	GLU	172	29.871	46.783	22.933	1.00 100.00
ATOM	1337	OE1	GLU	172	29.415	45.970	22.156	1.00 100.00
ATOM	1338	OE2	GLU	172	29.370	47.982	23.149	1.00 100.00
ATOM	1339	N	ASP	173	34.277	46.934	25.034	1.00 24.41
ATOM	1340	CA	ASP	173	35.292	47.978	24.852	1.00 25.03
ATOM	1341	C	ASP	173	36.651	47.624	25.455	1.00 33.40
ATOM	1342	O	ASP	173	37.561	48.451	25.518	1.00 30.42
ATOM	1343	CB	ASP	173	34.822	49.319	25.401	1.00 23.30
ATOM	1344	CG	ASP	173	34.743	49.358	26.912	1.00 32.47
ATOM	1345	OD1	ASP	173	34.406	50.355	27.513	1.00 37.58
ATOM	1346	OD2	ASP	173	34.949	48.196	27.504	1.00 49.22
ATOM	1347	N	GLY	174	36.766	46.410	25.956	1.00 23.87
ATOM	1348	CA	GLY	174	38.019	45.994	26.537	1.00 21.30

FIG. 5-33

ATOM	1349	C	GLY	174	38.012	46.090	28.044	1.00 19.99
ATOM	1350	O	GLY	174	38.927	45.585	28.709	1.00 20.45
ATOM	1351	N	SER	175	36.972	46.767	28.598	1.00 13.88
ATOM	1352	CA	SER	175	36.898	46.931	30.034	1.00 8.70
ATOM	1353	C	SER	175	36.296	45.728	30.765	1.00 17.30
ATOM	1354	O	SER	175	36.136	44.655	30.175	1.00 18.77
ATOM	1355	CB	SER	175	36.288	48.235	30.450	1.00 14.07
ATOM	1356	OG	SER	175	36.360	48.316	31.865	1.00 24.79
ATOM	1357	N	VAL	176	35.963	45.912	32.051	1.00 13.74
ATOM	1358	CA	VAL	176	35.415	44.826	32.864	1.00 16.46
ATOM	1359	C	VAL	176	34.191	45.204	33.703	1.00 22.46
ATOM	1360	O	VAL	176	34.159	46.254	34.334	1.00 21.31
ATOM	1361	CB	VAL	176	36.477	44.285	33.818	1.00 24.43
ATOM	1362	CG1	VAL	176	35.847	43.344	34.827	1.00 27.45
ATOM	1363	CG2	VAL	176	37.532	43.536	33.035	1.00 25.65
ATOM	1364	N	GLN	177	33.234	44.269	33.787	1.00 15.47
ATOM	1365	CA	GLN	177	32.048	44.430	34.647	1.00 15.40
ATOM	1366	C	GLN	177	32.102	43.457	35.813	1.00 10.60
ATOM	1367	O	GLN	177	32.027	42.243	35.634	1.00 13.65
ATOM	1368	CB	GLN	177	30.709	44.283	33.872	1.00 15.57
ATOM	1369	CG	GLN	177	29.468	44.294	34.828	1.00 19.13
ATOM	1370	CD	GLN	177	29.108	45.678	35.361	1.00 14.91
ATOM	1371	OE1	GLN	177	28.759	46.588	34.574	1.00 20.17
ATOM	1372	NE2	GLN	177	29.128	45.821	36.690	1.00 17.28
ATOM	1373	N	LEU	178	32.227	43.993	37.018	1.00 8.17
ATOM	1374	CA	LEU	178	32.313	43.180	38.181	1.00 16.66
ATOM	1375	C	LEU	178	30.954	42.786	38.712	1.00 20.93
ATOM	1376	O	LEU	178	30.033	43.608	38.753	1.00 14.66
ATOM	1377	CB	LEU	178	33.089	43.896	39.293	1.00 20.63
ATOM	1378	CG	LEU	178	34.286	43.110	39.815	1.00 39.28
ATOM	1379	CD1	LEU	178	33.831	42.087	40.852	1.00 45.14
ATOM	1380	CD2	LEU	178	35.018	42.426	38.648	1.00 39.52
ATOM	1381	N	ALA	179	30.869	41.550	39.171	1.00 16.72
ATOM	1382	CA	ALA	179	29.652	41.033	39.754	1.00 15.55
ATOM	1383	C	ALA	179	29.932	40.277	41.040	1.00 15.70
ATOM	1384	O	ALA	179	30.337	39.119	41.028	1.00 15.91
ATOM	1385	CB	ALA	179	28.853	40.197	38.731	1.00 14.08
ATOM	1386	N	ASP	180	29.694	40.946	42.155	1.00 8.88
ATOM	1387	CA	ASP	180	29.897	40.407	43.480	1.00 7.18
ATOM	1388	C	ASP	180	28.802	39.460	43.891	1.00 17.07
ATOM	1389	O	ASP	180	27.651	39.844	43.987	1.00 18.22

FIG. 5-34

ATOM	1390	CB	ASP	180	29.934	41.509	44.509	1.00 13.06
ATOM	1391	CG	ASP	180	31.285	41.902	44.935	1.00 46.28
ATOM	1392	OD1	ASP	180	31.981	41.206	45.655	1.00 60.46
ATOM	1393	OD2	ASP	180	31.574	43.121	44.560	1.00 46.61
ATOM	1394	N	HIS	181	29.173	38.242	44.197	1.00 14.51
ATOM	1395	CA	HIS	181	28.213	37.223	44.575	1.00 10.49
ATOM	1396	C	HIS	181	28.218	36.897	46.049	1.00 14.28
ATOM	1397	O	HIS	181	29.255	36.580	46.607	1.00 17.40
ATOM	1398	CB	HIS	181	28.450	35.915	43.769	1.00 9.89
ATOM	1399	CG	HIS	181	28.077	35.972	42.328	1.00 10.38
ATOM	1400	ND1	HIS	181	28.606	36.926	41.455	1.00 12.24
ATOM	1401	CD2	HIS	181	27.279	35.146	41.606	1.00 10.42
ATOM	1402	CE1	HIS	181	28.093	36.678	40.269	1.00 9.97
ATOM	1403	NE2	HIS	181	27.314	35.594	40.316	1.00 9.38
ATOM	1404	N	TYR	182	27.029	36.897	46.668	1.00 10.40
ATOM	1405	CA	TYR	182	26.848	36.518	48.062	1.00 13.86
ATOM	1406	C	TYR	182	25.871	35.393	48.089	1.00 20.61
ATOM	1407	O	TYR	182	24.819	35.520	47.532	1.00 16.35
ATOM	1408	CB	TYR	182	26.359	37.664	48.934	1.00 21.12
ATOM	1409	CG	TYR	182	27.421	38.693	49.062	1.00 34.16
ATOM	1410	CD1	TYR	182	27.521	39.715	48.120	1.00 46.06
ATOM	1411	CD2	TYR	182	28.389	38.616	50.064	1.00 38.56
ATOM	1412	CE1	TYR	182	28.532	40.674	48.197	1.00 57.53
ATOM	1413	CE2	TYR	182	29.418	39.559	50.147	1.00 40.76
ATOM	1414	CZ	TYR	182	29.480	40.594	49.216	1.00 54.61
ATOM	1415	OH	TYR	182	30.461	41.534	49.308	1.00 61.92
ATOM	1416	N	GLN	183	26.246	34.277	48.686	1.00 17.63
ATOM	1417	CA	GLN	183	25.410	33.104	48.583	1.00 16.37
ATOM	1418	C	GLN	183	25.289	32.311	49.863	1.00 21.39
ATOM	1419	O	GLN	183	26.260	32.174	50.623	1.00 19.86
ATOM	1420	CB	GLN	183	25.984	32.219	47.422	1.00 13.33
ATOM	1421	CG	GLN	183	25.651	30.688	47.457	1.00 17.38
ATOM	1422	CD	GLN	183	26.411	29.884	46.389	1.00 17.27
ATOM	1423	OE1	GLN	183	26.975	30.454	45.456	1.00 13.80
ATOM	1424	NE2	GLN	183	26.361	28.553	46.473	1.00 13.94
ATOM	1425	N	GLN	184	24.080	31.739	50.055	1.00 19.74
ATOM	1426	CA	GLN	184	23.760	30.829	51.168	1.00 16.55
ATOM	1427	C	GLN	184	23.033	29.582	50.658	1.00 13.60
ATOM	1428	O	GLN	184	22.219	29.640	49.747	1.00 18.01
ATOM	1429	CB	GLN	184	22.949	31.444	52.330	1.00 20.11
ATOM	1430	CG	GLN	184	23.364	32.855	52.768	1.00 74.84

FIG. 5-35

ATOM	1431	CD	GLN	184	22.312	33.517	53.657	1.00 100.00
ATOM	1432	OE1	GLN	184	21.159	33.054	53.752	1.00 97.99
ATOM	1433	NE2	GLN	184	22.639	34.625	54.286	1.00 100.00
ATOM	1434	N	ASN	185	23.418	28.446	51.207	1.00 14.76
ATOM	1435	CA	ASN	185	22.831	27.155	50.887	1.00 13.86
ATOM	1436	C	ASN	185	22.421	26.463	52.166	1.00 16.06
ATOM	1437	O	ASN	185	23.176	26.402	53.172	1.00 17.39
ATOM	1438	CB	ASN	185	23.761	26.212	50.119	1.00 15.20
ATOM	1439	CG	ASN	185	24.110	26.696	48.748	1.00 12.75
ATOM	1440	OD1	ASN	185	24.704	27.758	48.592	1.00 22.56
ATOM	1441	ND2	ASN	185	23.830	25.868	47.763	1.00 17.70
ATOM	1442	N	THR	186	21.227	25.941	52.139	1.00 18.01
ATOM	1443	CA	THR	186	20.707	25.227	53.288	1.00 17.40
ATOM	1444	C	THR	186	19.976	24.010	52.824	1.00 23.63
ATOM	1445	O	THR	186	19.389	23.991	51.730	1.00 24.57
ATOM	1446	CB	THR	186	19.856	26.100	54.206	1.00 28.82
ATOM	1447	OG1	THR	186	18.874	26.752	53.446	1.00 35.65
ATOM	1448	CG2	THR	186	20.753	27.121	54.903	1.00 28.86
ATOM	1449	N	PRO	187	20.101	22.951	53.620	1.00 22.40
ATOM	1450	CA	PRO	187	19.504	21.683	53.269	1.00 20.28
ATOM	1451	C	PRO	187	17.988	21.757	53.288	1.00 22.41
ATOM	1452	O	PRO	187	17.390	22.518	54.071	1.00 25.07
ATOM	1453	CB	PRO	187	19.977	20.682	54.337	1.00 19.79
ATOM	1454	CG	PRO	187	20.840	21.449	55.338	1.00 26.98
ATOM	1455	CD	PRO	187	20.786	22.918	54.949	1.00 22.04
ATOM	1456	N	ILE	188	17.382	20.957	52.453	1.00 18.77
ATOM	1457	CA	ILE	188	15.907	20.855	52.407	1.00 20.12
ATOM	1458	C	ILE	188	15.470	19.766	53.389	1.00 31.58
ATOM	1459	O	ILE	188	14.596	19.966	54.202	1.00 38.58
ATOM	1460	CB	ILE	188	15.385	20.574	50.991	1.00 21.52
ATOM	1461	CG1	ILE	188	15.555	21.775	50.102	1.00 16.10
ATOM	1462	CG2	ILE	188	13.916	20.141	50.981	1.00 28.85
ATOM	1463	CD1	ILE	188	15.139	21.471	48.660	1.00 15.31
ATOM	1464	N	GLY	189	16.142	18.618	53.352	1.00 32.39
ATOM	1465	CA	GLY	189	15.833	17.531	54.283	1.00 32.94
ATOM	1466	C	GLY	189	16.339	17.817	55.702	1.00 40.20
ATOM	1467	O	GLY	189	17.016	18.810	55.967	1.00 35.57
ATOM	1468	N	ASP	190	16.003	19.928	56.617	1.00 49.41
ATOM	1469	CA	ASP	190	16.392	17.047	58.021	1.00 55.01
ATOM	1470	C	ASP	190	17.556	16.115	58.338	1.00 56.16
ATOM	1471	O	ASP	190	18.083	16.100	59.463	1.00 58.30

FIG. 5-36

ATOM	1472 CB	ASP	190	15.195	16.734	58.955	1.00 63.89
ATOM	1473 CG	ASP	190	14.592	15.365	58.686	1.00 99.67
ATOM	1474 OD1	ASP	190	14.599	14.466	59.514	1.00 100.00
ATOM	1475 OD2	ASP	190	14.088	15.240	57.470	1.00 100.00
ATOM	1476 N	GLY	191	17.921	15.312	57.323	1.00 47.20
ATOM	1477 CA	GLY	191	19.015	14.347	57.419	1.00 44.96
ATOM	1478 C	GLY	191	20.359	15.044	57.587	1.00 34.43
ATOM	1479 O	GLY	191	20.452	16.266	57.438	1.00 29.96
ATOM	1480 N	PRO	192	21.402	14.264	57.905	1.00 27.26
ATOM	1481 CA	PRO	192	22.737	14.834	58.100	1.00 24.01
ATOM	1482 C	PRO	192	23.444	15.274	56.787	1.00 20.55
ATOM	1483 O	PRO	192	23.323	14.648	55.740	1.00 23.84
ATOM	1484 CB	PRO	192	23.583	13.764	58.825	1.00 21.00
ATOM	1485 CG	PRO	192	22.739	12.501	58.915	1.00 27.49
ATOM	1486 CD	PRO	192	21.330	12.863	58.448	1.00 27.26
ATOM	1487 N	VAL	193	24.193	16.363	56.892	1.00 17.87
ATOM	1488 CA	VAL	193	24.964	16.902	55.792	1.00 19.51
ATOM	1489 C	VAL	193	26.380	17.108	56.249	1.00 22.37
ATOM	1490 O	VAL	193	26.663	17.189	57.443	1.00 23.84
ATOM	1491 CB	VAL	193	24.449	18.245	55.256	1.00 25.24
ATOM	1492 CG1	VAL	193	23.059	18.118	54.632	1.00 21.90
ATOM	1493 CG2	VAL	193	24.497	19.322	56.346	1.00 24.81
ATOM	1494 N	LEU	194	27.253	17.241	55.277	1.00 19.04
ATOM	1495 CA	LEU	194	28.654	17.438	55.516	1.00 20.29
ATOM	1496 C	LEU	194	29.006	18.930	55.571	1.00 18.71
ATOM	1497 O	LEU	194	28.907	19.615	54.591	1.00 20.13
ATOM	1498 CB	LEU	194	29.412	16.806	54.327	1.00 22.92
ATOM	1499 CG	LEU	194	29.994	15.423	54.542	1.00 30.60
ATOM	1500 CD1	LEU	194	29.227	14.642	55.595	1.00 35.19
ATOM	1501 CD2	LEU	194	30.048	14.672	53.211	1.00 25.61
ATOM	1502 N	LEU	195	29.453	19.430	56.713	1.00 17.39
ATOM	1503 CA	LEU	195	29.881	20.808	56.785	1.00 18.83
ATOM	1504 C	LEU	195	31.389	20.837	56.579	1.00 28.32
ATOM	1505 O	LEU	195	32.161	20.152	57.281	1.00 21.98
ATOM	1506 CB	LEU	195	29.489	21.525	58.072	1.00 22.20
ATOM	1507 CG	LEU	195	28.055	21.349	58.444	1.00 26.40
ATOM	1508 CD1	LEU	195	27.937	21.508	59.941	1.00 31.99
ATOM	1509 CD2	LEU	195	27.225	22.395	57.726	1.00 26.90
ATOM	1510 N	PRO	196	31.789	21.610	55.597	1.00 21.58
ATOM	1511 CA	PRO	196	33.177	21.666	55.154	1.00 22.17
ATOM	1512 C	PRO	196	34.080	22.623	55.892	1.00 29.56

FIG. 5-37

ATOM	1513 O	PRO	196	33.635	23.588	56.490	1.00 29.04
ATOM	1514 CB	PRO	196	33.054	22.265	53.752	1.00 22.77
ATOM	1515 CG	PRO	196	31.761	23.104	53.735	1.00 18.99
ATOM	1516 CD	PRO	196	30.910	22.567	54.861	1.00 16.42
ATOM	1517 N	ASP	197	35.379	22.410	55.716	1.00 22.95
ATOM	1518 CA	ASP	197	36.364	23.370	56.134	1.00 19.71
ATOM	1519 C	ASP	197	36.556	24.295	54.931	1.00 24.74
ATOM	1520 O	ASP	197	36.251	23.913	53.800	1.00 24.88
ATOM	1521 CB	ASP	197	37.711	22.730	56.446	1.00 22.28
ATOM	1522 CG	ASP	197	37.690	21.913	57.687	1.00 43.93
ATOM	1523 OD1	ASP	197	36.912	22.117	58.608	1.00 53.47
ATOM	1524 OD2	ASP	197	38.634	21.006	57.694	1.00 31.58
ATOM	1525 N	ASN	198	37.062	25.501	55.168	1.00 19.74
ATOM	1526 CA	ASN	198	37.254	26.470	54.118	1.00 15.38
ATOM	1527 C	ASN	198	37.974	25.889	52.971	1.00 19.61
ATOM	1528 O	ASN	198	38.958	25.236	53.134	1.00 22.69
ATOM	1529 CB	ASN	198	38.013	27.704	54.614	1.00 24.48
ATOM	1530 CG	ASN	198	37.236	28.504	55.632	1.00 52.21
ATOM	1531 OD1	ASN	198	36.107	28.174	55.961	1.00 34.54
ATOM	1532 ND2	ASN	198	37.854	29.556	56.150	1.00 55.11
ATOM	1533 N	HIS	199	37.462	26.125	51.801	1.00 16.30
ATOM	1534 CA	HIS	199	38.071	25.627	50.616	1.00 15.80
ATOM	1535 C	HIS	199	37.496	26.357	49.450	1.00 14.85
ATOM	1536 O	HIS	199	36.757	27.295	49.643	1.00 16.45
ATOM	1537 CB	HIS	199	37.988	24.103	50.471	1.00 16.53
ATOM	1538 CG	HIS	199	36.597	23.628	50.218	1.00 16.65
ATOM	1539 ND1	HIS	199	35.695	23.491	51.244	1.00 17.85
ATOM	1540 CD2	HIS	199	35.987	23.282	49.048	1.00 18.67
ATOM	1541 CE1	HIS	199	34.561	23.052	50.688	1.00 19.45
ATOM	1542 NE2	HIS	199	34.716	22.905	49.364	1.00 18.74
ATOM	1543 N	TYR	200	37.879	25.998	48.247	1.00 12.56
ATOM	1544 CA	TYR	200	37.334	26.689	47.100	1.00 14.01
ATOM	1545 C	TYR	200	37.207	25.824	45.870	1.00 15.57
ATOM	1546 O	TYR	200	37.793	24.751	45.768	1.00 20.20
ATOM	1547 CB	TYR	200	38.030	28.011	46.779	1.00 19.79
ATOM	1548 CG	TYR	200	39.382	27.745	46.202	1.00 22.25
ATOM	1549 CD1	TYR	200	39.543	27.526	44.835	1.00 22.53
ATOM	1550 CD2	TYR	200	40.473	27.605	47.057	1.00 25.73
ATOM	1551 CE1	TYR	200	40.800	27.222	44.317	1.00 35.51
ATOM	1552 CE2	TYR	200	41.739	27.314	46.559	1.00 29.34
ATOM	1553 CZ	TYR	200	41.896	27.132	45.186	1.00 54.14

FIG. 5-38

ATOM	1554	OH	TYR	200	43.153	26.820	44.703	1.00 62.66
ATOM	1555	N	LEU	201	36.393	26.309	44.946	1.00 15.07
ATOM	1556	CA	LEU	201	36.147	25.680	43.678	1.00 11.01
ATOM	1557	C	LEU	201	36.753	26.532	42.593	1.00 17.30
ATOM	1558	O	LEU	201	36.619	27.753	42.610	1.00 20.19
ATOM	1559	CB	LEU	201	34.628	25.518	43.354	1.00 10.09
ATOM	1560	CG	LEU	201	33.749	25.027	44.480	1.00 13.41
ATOM	1561	CD1	LEU	201	32.293	24.938	43.954	1.00 17.11
ATOM	1562	CD2	LEU	201	34.196	23.635	44.927	1.00 23.03
ATOM	1563	N	SER	202	37.407	25.868	41.651	1.00 10.75
ATOM	1564	CA	SER	202	38.047	26.490	40.528	1.00 8.51
ATOM	1565	C	SER	202	37.222	26.189	39.294	1.00 11.56
ATOM	1566	O	SER	202	36.919	25.038	38.996	1.00 14.58
ATOM	1567	CB	SER	202	39.485	25.987	40.442	1.00 15.68
ATOM	1568	OG	SER	202	40.067	26.353	39.228	1.00 36.44
ATOM	1569	N	THR	203	36.798	27.241	38.601	1.00 12.36
ATOM	1570	CA	THR	203	35.879	27.067	37.499	1.00 15.60
ATOM	1571	C	THR	203	36.417	27.521	36.195	1.00 20.19
ATOM	1572	O	THR	203	37.192	28.472	36.114	1.00 18.29
ATOM	1573	CB	THR	203	34.565	27.892	37.757	1.00 20.51
ATOM	1574	OG1	THR	203	34.911	29.260	37.780	1.00 20.39
ATOM	1575	CG2	THR	203	33.935	27.557	39.093	1.00 6.80
ATOM	1576	N	GLN	204	35.913	26.883	35.164	1.00 10.30
ATOM	1577	CA	GLN	204	36.173	27.271	33.807	1.00 14.85
ATOM	1578	C	GLN	204	34.956	26.980	32.921	1.00 23.14
ATOM	1579	O	GLN	204	34.334	25.932	33.056	1.00 21.66
ATOM	1580	CB	GLN	204	37.475	26.696	33.237	1.00 20.33
ATOM	1581	CG	GLN	204	37.271	25.371	32.518	1.00 40.16
ATOM	1582	CD	GLN	204	38.588	24.722	32.193	1.00 59.76
ATOM	1583	OE1	GLN	204	39.011	24.716	31.035	1.00 41.80
ATOM	1584	NE2	GLN	204	39.276	24.241	33.235	1.00 34.80
ATOM	1585	N	SER	205	34.619	27.913	32.021	1.00 15.83
ATOM	1586	CA	SER	205	33.447	27.762	31.172	1.00 14.60
ATOM	1587	C	SER	205	33.654	28.307	29.783	1.00 20.21
ATOM	1588	O	SER	205	34.282	29.337	29.581	1.00 17.82
ATOM	1589	CB	SER	205	32.197	28.445	31.758	1.00 11.88
ATOM	1590	OG	SER	205	32.121	28.406	33.177	1.00 15.45
ATOM	1591	N	ALA	206	33.065	27.630	28.827	1.00 13.00
ATOM	1592	CA	ALA	206	33.079	28.029	27.426	1.00 9.99
ATOM	1593	C	ALA	206	31.623	28.192	26.924	1.00 21.23
ATOM	1594	O	ALA	206	30.809	27.306	27.139	1.00 14.10

FIG. 5-39

ATOM	1595 CB	ALA	206	33.751	26.936	26.596	1.00 13.45
ATOM	1596 N	LEU	207	31.335	29.320	26.263	1.00 16.09
ATOM	1597 CA	LEU	207	30.036	29.167	25.706	1.00 12.07
ATOM	1598 C	LEU	207	30.070	29.445	24.235	1.00 19.76
ATOM	1599 O	LEU	207	31.014	29.840	23.576	1.00 20.82
ATOM	1600 CB	LEU	207	29.580	31.057	26.004	1.00 8.24
ATOM	1601 CG	LEU	207	29.744	31.493	27.457	1.00 16.35
ATOM	1602 CD1	LEU	207	28.955	32.790	27.707	1.00 13.78
ATOM	1603 CD2	LEU	207	29.268	30.406	28.400	1.00 18.79
ATOM	1604 N	SER	208	29.011	28.863	23.698	1.00 15.35
ATOM	1605 CA	SER	208	28.914	28.692	22.270	1.00 13.74
ATOM	1606 C	SER	208	27.449	28.852	21.794	1.00 20.16
ATOM	1607 O	SER	208	26.548	29.085	22.594	1.00 15.81
ATOM	1608 CB	SER	208	29.495	27.367	21.822	1.00 17.82
ATOM	1609 OG	SER	208	28.769	26.311	22.431	1.00 31.45
ATOM	1610 N	LYS	209	27.242	28.738	20.485	1.00 16.50
ATOM	1611 CA	LYS	209	25.907	28.828	19.906	1.00 18.02
ATOM	1612 C	LYS	209	25.637	27.610	19.031	1.00 29.99
ATOM	1613 O	LYS	209	26.578	27.004	18.502	1.00 32.55
ATOM	1614 CB	LYS	209	25.783	30.100	19.082	1.00 20.96
ATOM	1615 CG	LYS	209	24.746	31.055	19.606	1.00 34.50
ATOM	1616 CD	LYS	209	25.262	31.964	20.666	1.00 22.72
ATOM	1617 CE	LYS	209	24.370	33.159	290.896	1.00 18.96
ATOM	1618 NZ	LYS	209	23.565	33.067	22.116	1.00 27.39
ATOM	1619 N	ASP	210	24.347	27.241	18.912	1.00 27.01
ATOM	1620 CA	ASP	210	23.890	26.159	18.038	1.00 24.62
ATOM	1621 C	ASP	210	23.465	26.793	16.705	1.00 26.77
ATOM	1622 O	ASP	210	22.468	27.514	16.605	1.00 23.00
ATOM	1623 CB	ASP	210	22.744	25.361	18.691	1.00 24.43
ATOM	1624 CG	ASP	210	22.197	24.249	17.839	1.00 35.55
ATOM	1625 OD1	ASP	210	22.333	24.185	16.631	1.00 36.53
ATOM	1626 OD2	ASP	210	21.499	23.400	18.535	1.00 45.51
ATOM	1627 N	PRO	211	24.306	26.618	15.708	1.00 30.25
ATOM	1628 CA	PRO	211	24.120	27.224	14.397	1.00 30.30
ATOM	1629 C	PRO	211	22.733	26.982	13.770	1.00 39.72
ATOM	1630 O	PRO	211	22.253	27.782	12.959	1.00 37.65
ATOM	1631 CB	PRO	211	25.197	26.620	13.500	1.00 29.99
ATOM	1632 CG	PRO	211	25.782	25.418	14.255	1.00 38.59
ATOM	1633 CD	PRO	211	25.158	25.405	15.647	1.00 35.05
ATOM	1634 N	ASN	212	22.102	25.868	14.140	1.00 39.64
ATOM	1635 CA	ASN	212	20.808	25.515	13.592	1.00 39.60

FIG. 5-40

ATOM	1636 C	ASN	212	19.642	25.894	14.497	1.00 41.92
ATOM	1637 O	ASN	212	18.485	25.518	14.263	1.00 42.30
ATOM	1638 CB	ASN	212	20.788	24.028	13.236	1.00 48.64
ATOM	1639 CG	ASN	212	21.883	23.678	12.230	1.00 53.61
ATOM	1640 N	GLU	213	19.947	26.675	15.520	1.00 27.84
ATOM	1641 CA	GLU	213	18.953	27.080	16.478	1.00 20.43
ATOM	1642 C	GLU	213	18.485	28.527	16.241	1.00 29.95
ATOM	1643 O	GLU	213	19.247	29.475	16.324	1.00 32.77
ATOM	1644 CB	GLU	213	19.535	26.878	17.894	1.00 16.45
ATOM	1645 CG	GLU	213	18.594	27.326	18.995	1.00 18.29
ATOM	1646 CD	GLU	213	17.229	26.703	18.853	1.00 38.01
ATOM	1647 OE1	GLU	213	16.238	27.334	18.508	1.00 25.07
ATOM	1648 OE2	GLU	213	17.223	25.423	19.122	1.00 19.17
ATOM	1649 N	LYS	214	17.223	28.713	15.963	1.00 22.99
ATOM	1650 CA	LYS	214	16.721	30.081	15.726	1.00 22.84
ATOM	1651 C	LYS	214	16.252	30.778	16.982	1.00 21.50
ATOM	1652 O	LYS	214	16.130	32.016	17.032	1.00 28.15
ATOM	1653 CB	LYS	214	15.653	30.197	14.606	1.00 27.58
ATOM	1654 CG	LYS	214	16.153	29.816	13.209	1.00 32.71
ATOM	1655 CD	LYS	214	16.752	30.979	12.431	1.00 55.31
ATOM	1656 N	ARG	215	15.947	30.028	18.014	1.00 14.52
ATOM	1657 CA	ARG	215	15.518	30.726	19.209	1.00 15.58
ATOM	1658 C	ARG	215	16.719	31.382	19.892	1.00 21.87
ATOM	1659 O	ARG	215	17.848	31.075	19.572	1.00 26.69
ATOM	1660 CB	ARG	215	14.808	29.804	20.159	1.00 18.82
ATOM	1661 CG	ARG	215	13.660	29.067	19.475	1.00 23.30
ATOM	1662 CD	ARG	215	13.220	27.806	20.205	1.00 15.45
ATOM	1663 NE	ARG	215	14.107	26.668	19.929	1.00 28.08
ATOM	1664 CZ	ARG	215	14.022	25.473	20.543	1.00 21.38
ATOM	1665 NH1	ARG	215	13.074	25.215	21.455	1.00 23.92
ATOM	1666 NH2	ARG	215	14.893	24.514	20.225	1.00 20.46
ATOM	1667 N	ASP	216	16.466	32.275	20.830	1.00 16.72
ATOM	1668 CA	ASP	216	17.556	32.895	21.617	1.00 19.06
ATOM	1669 C	ASP	216	18.047	31.817	22.607	1.00 20.02
ATOM	1670 O	ASP	216	17.261	31.214	23.350	1.00 18.45
ATOM	1671 CB	ASP	216	17.066	34.169	22.383	1.00 21.33
ATOM	1672 CG	ASP	216	18.138	35.140	22.893	1.00 20.97
ATOM	1673 OD1	ASP	216	17.869	36.079	23.620	1.00 28.46
ATOM	1674 OD2	ASP	216	19.342	34.900	22.441	1.00 20.37
ATOM	1675 N	HIS	217	19.332	31.537	22.589	1.00 13.18
ATOM	1676 CA	HIS	217	19.813	30.482	23.433	1.00 11.21

FIG. 5-41

ATOM	1677 C	HIS	217	21.313	30.614	23.723	1.00 21.35
ATOM	1678 O	HIS	217	22.014	31.471	23.163	1.00 15.03
ATOM	1679 CB	HIS	217	19.587	29.168	22.690	1.00 13.03
ATOM	1680 CG	HIS	217	20.525	29.025	21.542	1.00 15.49
ATOM	1681 ND1	HIS	217	20.463	29.871	20.449	1.00 17.88
ATOM	1682 CD2	HIS	217	21.589	28.172	21.361	1.00 17.51
ATOM	1683 CE1	HIS	217	21.457	29.524	19.635	1.00 17.94
ATOM	1684 NE2	HIS	217	22.152	28.501	20.151	1.00 17.59
ATOM	1685 N	MSE	218	21.794	29.725	24.576	1.00 11.26
ATOM	1686 CA	MSE	218	23.186	29.642	24.887	1.00 11.49
ATOM	1687 C	MSE	218	23.560	28.198	25.094	1.00 24.15
ATOM	1688 O	MSE	218	22.822	27.446	25.751	1.00 20.70
ATOM	1689 CB	MSE	218	23.539	30.421	26.172	1.00 12.84
ATOM	1690 CG	MSE	218	24.809	30.004	26.907	1.00 12.59
ATOM	1691 SE	MSE	218	25.267	31.128	28.434	1.00 29.94
ATOM	1692 CE	MSE	218	24.039	30.502	29.781	1.00 13.54
ATOM	1693 N	VAL	219	24.727	27.824	24.558	1.00 15.62
ATOM	1694 CA	VAL	219	25.309	26.518	24.782	1.00 10.58
ATOM	1695 C	VAL	219	26.473	26.689	25.753	1.00 16.54
ATOM	1696 O	VAL	219	27.280	27.604	25.585	1.00 15.54
ATOM	1697 CB	VAL	219	25.774	25.883	23.498	1.00 15.08
ATOM	1698 CG1	VAL	219	26.330	24.495	23.824	1.00 14.34
ATOM	1699 CG2	VAL	219	24.599	25.766	22.512	1.00 15.78
ATOM	1700 N	LEU	220	26.523	25.836	26.783	1.00 10.95
ATOM	1701 CA	LEU	220	27.490	25.939	27.850	1.00 11.01
ATOM	1702 C	LEU	220	28.206	24.643	28.184	1.00 21.26
ATOM	1703 O	LEU	220	27.592	23.577	28.324	1.00 15.94
ATOM	1704 CB	LEU	220	26.807	26.545	29.100	1.00 13.75
ATOM	1705 CG	LEU	220	27.624	26.578	30.402	1.00 21.10
ATOM	1706 CD1	LEU	220	28.433	27.875	30.483	1.00 23.53
ATOM	1707 CD2	LEU	220	26.663	26.556	31.586	1.00 22.04
ATOM	1708 N	LEU	221	29.570	24.758	28.273	1.00 19.04
ATOM	1709 CA	LEU	221	30.498	23.666	28.697	1.00 13.22
ATOM	1710 C	LEU	221	31.309	24.178	29.887	1.00 10.73
ATOM	1711 O	LEU	221	31.846	25.267	29.857	1.00 12.98
ATOM	1712 CB	LEU	221	31.382	23.102	27.549	1.00 13.74
ATOM	1713 CG	LEU	221	32.580	22.257	28.045	1.00 18.64
ATOM	1714 CD1	LEU	221	32.149	20.868	28.496	1.00 17.38
ATOM	1715 CD2	LEU	221	33.571	22.109	26.911	1.00 26.97
ATOM	1716 N	GLU	222	31.316	23.446	30.963	1.00 9.31
ATOM	1717 CA	GLU	222	31.936	23.929	32.144	1.00 9.97

FIG. 5-42

ATOM	1718	C	GLU	222	32.548	22.803	32.951	1.00 12.94
ATOM	1719	O	GLU	222	32.072	21.662	32.966	1.00 13.38
ATOM	1720	CB	GLU	222	30.836	24.762	32.896	1.00 12.14
ATOM	1721	CG	GLU	222	31.092	25.119	34.364	1.00 13.88
ATOM	1722	CD	GLU	222	29.895	25.891	34.934	1.00 13.57
ATOM	1723	OE1	GLU	222	29.128	26.477	34.240	1.00 19.47
ATOM	1724	OE2	GLU	222	29.752	25.789	36.207	1.00 18.51
ATOM	1725	N	PHE	223	33.687	23.123	33.542	1.00 15.86
ATOM	1726	CA	PHE	223	34.476	22.227	34.373	1.00 9.34
ATOM	1727	C	PHE	223	34.711	22.864	35.722	1.00 11.08
ATOM	1728	O	PHE	223	35.028	24.055	35.828	1.00 19.86
ATOM	1729	CB	PHE	223	35.847	21.919	33.684	1.00 8.30
ATOM	1730	CG	PHE	223	35.703	21.134	32.431	1.00 10.50
ATOM	1731	CD1	PHE	223	35.570	19.747	32.469	1.00 13.56
ATOM	1732	CD2	PHE	223	35.750	21.750	31.184	1.00 11.32
ATOM	1733	CE1	PHE	223	35.481	19.010	31.287	1.00 12.58
ATOM	1734	CE2	PHE	223	35.667	21.032	29.995	1.00 12.17
ATOM	1735	CZ	PHE	223	35.521	19.648	30.050	1.00 10.87
ATOM	1736	N	VAL	224	34.542	22.081	36.765	1.00 9.28
ATOM	1737	CA	VAL	224	34.708	22.587	38.080	1.00 11.18
ATOM	1738	C	VAL	224	35.324	21.553	39.010	1.00 17.52
ATOM	1739	O	VAL	224	34.848	20.418	39.137	1.00 13.17
ATOM	1740	CB	VAL	224	33.370	23.078	38.662	1.00 16.61
ATOM	1741	CG1	VAL	224	33.622	23.736	40.022	1.00 13.90
ATOM	1742	CG2	VAL	224	32.674	24.048	37.697	1.00 13.85
ATOM	1743	N	THR	225	36.380	21.965	39.676	1.00 11.71
ATOM	1744	CA	THR	225	37.026	21.099	40.617	1.00 11.61
ATOM	1745	C	THR	225	37.366	21.798	41.927	1.00 14.76
ATOM	1746	O	THR	225	37.702	23.002	41.962	1.00 16.64
ATOM	1747	CB	THR	225	38.162	20.279	40.014	1.00 20.38
ATOM	1748	OG1	THR	225	39.288	20.337	40.822	1.00 30.44
ATOM	1749	CG2	THR	225	38.468	20.722	38.631	1.00 10.89
ATOM	1750	N	ALA	226	37.222	21.065	43.011	1.00 7.89
ATOM	1751	CA	ALA	226	37.478	21.595	44.352	1.00 11.63
ATOM	1752	C	ALA	226	38.969	21.558	44.677	1.00 16.61
ATOM	1753	O	ALA	226	39.687	20.699	44.199	1.00 15.60
ATOM	1754	CB	ALA	226	36.695	20.847	45.444	1.00 12.17
ATOM	1755	N	ALA	227	39.395	22.490	45.479	1.00 13.95
ATOM	1756	CA	ALA	227	40.789	22.550	45.871	1.00 19.64
ATOM	1757	C	ALA	227	40.987	23.299	47.170	1.00 26.33
ATOM	1758	O	ALA	227	40.042	23.715	47.840	1.00 25.39

FIG. 5-43

ATOM	1759 CB	ALA	227	41.557	23.246	44.760	1.00 18.42
ATOM	1760 N	GLY	228	42.245	23.476	47.523	1.00 23.28
ATOM	1761 CA	GLY	228	42.616	24.292	48.658	1.00 21.61
ATOM	1762 C	GLY	228	42.805	23.562	49.939	1.00 32.93
ATOM	1763 O	GLY	228	42.948	24.201	51.009	1.00 32.53
ATOM	1764 N	ILE	229	42.803	22.231	49.842	1.00 33.59
ATOM	1765 CA	ILE	229	43.006	21.375	50.998	1.00 31.81
ATOM	1766 C	ILE	229	44.016	20.291	50.633	1.00 28.78
ATOM	1767 O	ILE	229	45.090	20.176	51.246	1.00 96.02
ATOM	1768 CB	ILE	229	41.691	20.772	51.519	1.00 35.70
ATOM	1769 CG1	ILE	229	40.890	21.807	52.325	1.00 30.66
ATOM	1770 CG2	ILE	229	41.990	19.549	52.392	1.00 33.37
ATOM	1771 CD1	ILE	229	39.386	21.715	52.092	1.00 38.74
ATOM	1772 O	HOH	301	27.530	12.735	38.010	1.00 15.09
ATOM	1773 O	HOH	302	23.919	34.589	37.331	1.00 10.29
ATOM	1774 O	HOH	303	27.229	34.816	35.487	1.00 11.12
ATOM	1775 O	HOH	304	29.914	18.943	44.692	1.00 16.10
ATOM	1776 O	HOH	305	30.956	21.886	49.900	1.00 21.47
ATOM	1777 O	HOH	306	20.072	31.196	43.592	1.00 16.85
ATOM	1778 O	HOH	307	26.660	48.630	33.797	1.00 24.67
ATOM	1779 O	HOH	308	22.329	33.239	41.399	1.00 14.11
ATOM	1780 O	HOH	309	22.465	48.025	32.810	1.00 18.51
ATOM	1781 O	HOH	310	31.012	39.126	29.118	1.00 16.01
ATOM	1782 O	HOH	311	33.067	35.809	33.010	1.00 19.92
ATOM	1783 O	HOH	312	31.130	37.076	30.841	1.00 12.68
ATOM	1784 O	HOH	313	40.304	30.058	38.616	1.00 56.07
ATOM	1785 O	HOH	314	34.166	26.379	57.222	1.00 22.58
ATOM	1786 O	HOH	315	36.215	35.320	43.598	1.00 22.30
ATOM	1787 O	HOH	316	33.866	29.786	34.671	1.00 12.21
ATOM	1865 O	HOH	317	42.341	20.166	43.534	1.00 26.67
ATOM	1788 O	HOH	318	10.270	28.684	30.403	1.00 43.66
ATOM	1789 O	HOH	319	28.448	16.822	30.655	1.00 25.44
ATOM	1790 O	HOH	320	30.612	20.922	37.231	1.00 21.57
ATOM	1791 O	HOH	321	11.639	37.421	26.801	1.00 34.12
ATOM	1792 O	HOH	322	27.030	37.308	36.869	1.00 13.10
ATOM	1793 O	HOH	323	33.119	14.524	43.070	1.00 30.93
ATOM	1794 O	HOH	324	37.973	14.036	53.352	1.00 35.39
ATOM	1795 O	HOH	235	32.015	49.100	37.028	1.00 59.37
ATOM	1796 O	HOH	326	11.959	12.020	43.429	1.00 29.06
ATOM	1797 O	HOH	327	36.760	29.941	31.666	1.00 22.03
ATOM	1864 O	HOH	328	15.305	26.513	15.694	1.00 39.62

FIG. 5-44

ATOM	1798 O	HOH	329	33.005	46.924	36.994	1.00 22.07
ATOM	1863 O	HOH	330	23.801	36.134	22.715	1.00 45.30
ATOM	1799 O	HOH	331	33.609	31.296	26.261	1.00 23.65
ATOM	1862 O	HOH	332	34.942	24.780	29.532	1.00 38.93
ATOM	1800 O	HOH	333	25.235	12.919	54.611	1.00 36.20
ATOM	1861 O	HOH	334	38.048	23.467	36.645	1.00 37.73
ATOM	1801 O	HOH	335	12.284	43.511	38.338	1.00 33.79
ATOM	1802 O	HOH	336	9.826	47.020	32.568	1.00 46.67
ATOM	1803 O	HOH	337	7.671	41.532	29.806	1.00 40.88
ATOM	1804 O	HOH	338	15.430	23.713	26.808	1.00 34.73
ATOM	1805 O	HOH	339	24.344	20.385	25.121	1.00 53.42
ATOM	1806 O	HOH	340	31.550	10.656	40.819	1.00 47.85
ATOM	1807 O	HOH	341	17.569	23.030	25.796	1.00 28.17
ATOM	1808 O	HOH	342	19.174	38.552	23.965	1.00 45.54
ATOM	1809 O	HOH	343	24.268	37.527	25.415	1.00 30.97
ATOM	1810 O	HOH	344	21.266	29.482	41.551	1.00 19.69
ATOM	1811 O	HOH	345	20.668	26.999	41.933	1.00 11.81
ATOM	1812 O	HOH	346	24.780	24.795	43.460	1.00 20.95
ATOM	1813 O	HOH	347	42.962	13.170	46.312	1.00 31.00
ATOM	1814 O	HOH	348	32.322	14.088	47.013	1.00 28.20
ATOM	1815 O	HOH	349	31.708	13.186	49.679	1.00 35.57
ATOM	1816 O	HOH	350	22.408	35.801	50.514	1.00 40.71
ATOM	1817 O	HOH	351	25.366	47.090	42.583	1.00 38.15
ATOM	1818 O	HOH	352	27.243	47.647	43.977	1.00 41.55
ATOM	1819 O	HOH	353	29.868	45.076	42.906	1.00 29.32
ATOM	1820 O	HOH	354	14.175	22.269	42.680	1.00 74.11
ATOM	1821 O	HOH	355	13.414	10.739	35.791	1.00 29.92
ATOM	1822 O	HOH	356	20.338	9.974	37.765	1.00 30.46
ATOM	1823 O	HOH	357	23.520	40.420	24.953	1.00 29.75
ATOM	1824 O	HOH	358	25.718	41.692	26.023	1.00 30.43
ATOM	1825 O	HOH	359	26.826	38.466	25.345	1.00 31.72
ATOM	1826 O	HOH	360	37.768	42.373	25.123	1.00 41.53
ATOM	1827 O	HOH	361	40.078	42.268	25.852	1.00 37.12
ATOM	1828 O	HOH	362	31.483	38.677	22.083	1.00 54.21
ATOM	1829 O	HOH	363	33.891	37.723	30.126	1.00 23.35
ATOM	1860 O	HOH	364	39.936	26.543	36.329	1.00 47.93
ATOM	1830 O	HOH	365	36.631	34.210	41.636	1.00 62.74
ATOM	1831 O	HOH	366	37.038	29.783	52.197	1.00 40.07
ATOM	1832 O	HOH	367	37.289	37.407	40.231	1.00 37.59
ATOM	1833 O	HOH	368	18.930	17.517	52.472	1.00 35.80
ATOM	1834 O	HOH	369	19.506	18.914	57.913	1.00 45.72

FIG. 5-45

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ATOM   1835 O   HOH   370      30.903  26.708  41.139  1.00 21.54
ATOM   1836 O   HOH   371      30.369  25.678  24.583  1.00 22.46
ATOM   1837 O   HOH   372      21.000  33.705  20.826  1.00 26.00
ATOM   1838 O   HOH   373      13.648  32.794  21.329  1.00 27.98
ATOM   1839 O   HOH   374      29.735  25.683  38.707  1.00 21.00
ATOM   1859 O   HOH   375      33.670  24.419  60.503  1.00 50.04
ATOM   1840 O   HOH   376      30.034  11.047  37.420  1.00 43.28
ATOM   1841 O   HOH   377       8.662  35.846  35.068  1.00 51.94
ATOM   1842 O   HOH   378      10.847  36.466  39.503  1.00 42.32
ATOM   1843 O   HOH   379      14.395  48.943  39.085  1.00 29.72
ATOM   1844 O   HOH   380      36.676  11.660  40.172  1.00 39.81
ATOM   1845 O   HOH   381      35.968   7.212  34.763  1.00 58.66
ATOM   1846 O   HOH   382      17.426  21.988  21.077  1.00 41.69
ATOM   1847 O   HOH   383      29.837  22.623  39.378  1.00 32.82
ATOM   1848 O   HOH   384      23.855  29.386  55.164  1.00 55.00
ATOM   1849 O   HOH   385      17.408  35.360  47.495  1.00 61.61
ATOM   1850 O   HOH   386      27.900  49.720  42.445  1.00 47.70
ATOM   1851 O   HOH   387      13.932  36.230  44.385  1.00 45.08
ATOM   1852 O   HOH   388      12.650  28.021  43.288  1.00 49.86
ATOM   1853 O   HOH   389      16.974  42.367  43.435  1.00 34.38
ATOM   1854 O   HOH   390      37.335  42.653  28.295  1.00 64.46
ATOM   1855 O   HOH   391      29.701  49.856  35.323  1.00 62.61
ATOM   1856 O   HOH   392      27.267  50.835  33.976  1.00 66.60
ATOM   1857 O   HOH   393      19.661  29.181  51.537  1.00 34.01
ATOM   1858 O   HOH   394      29.412  17.505  59.089  1.00 51.78
TER
END
```

FIG. 5-46

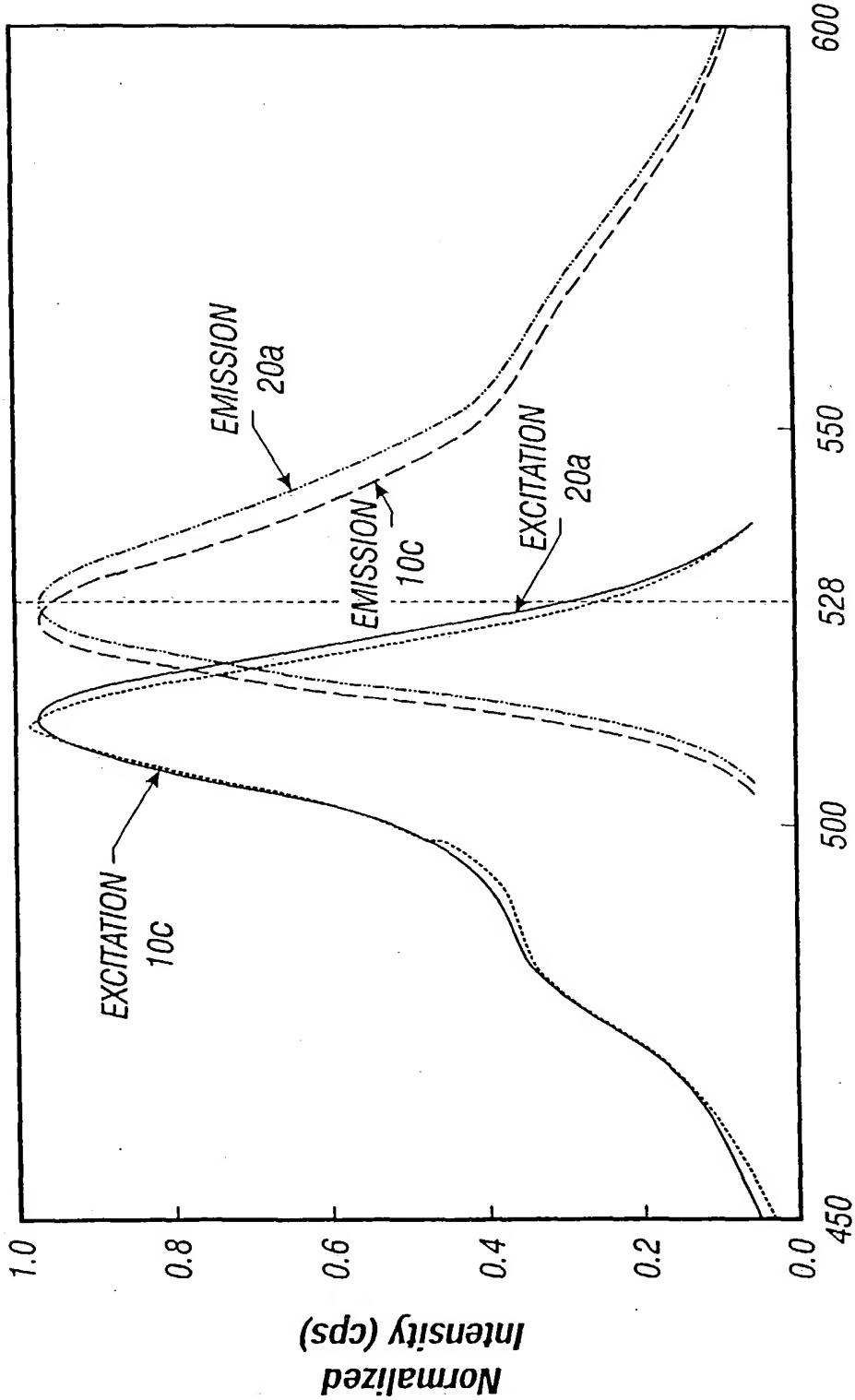
EMISSION
20a
EMISSION
10c
EXCITATION
20a
EXCITATION
10c
1.0
0.8
0.6
0.4
0.2
0.0
450
500
528
550
600
Normalized
Intensity (cps)
Wavelength (nm)

FIG. 6

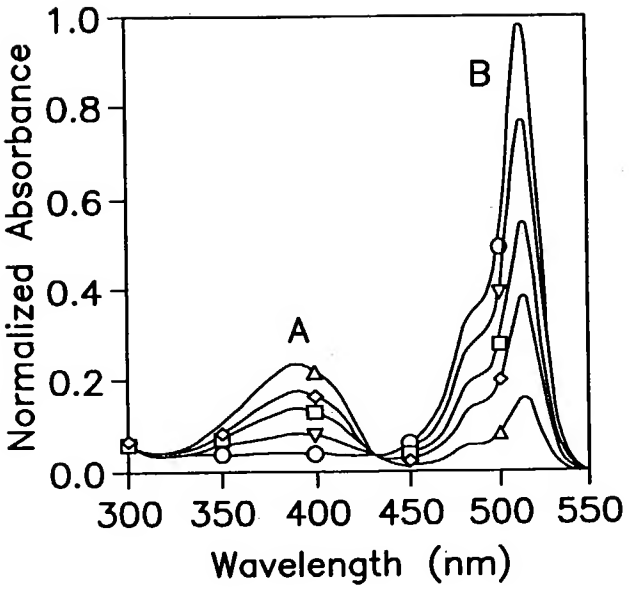
Normalized Absorbance
1.0
0.8
0.6
0.4
0.2
0.0
A
B
300
350
400
450
500
550
Wavelength (nm)

FIG. 7

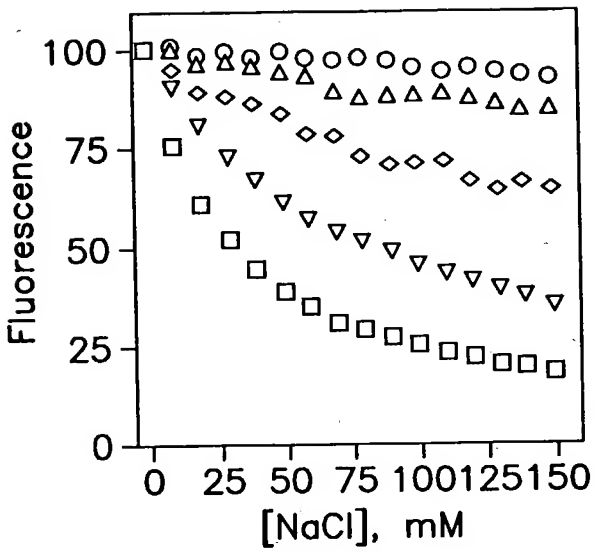
Fluorescence
100
75
50
25
0
0 25 50 75 100125150
[NaCl], mM

FIG. 8A

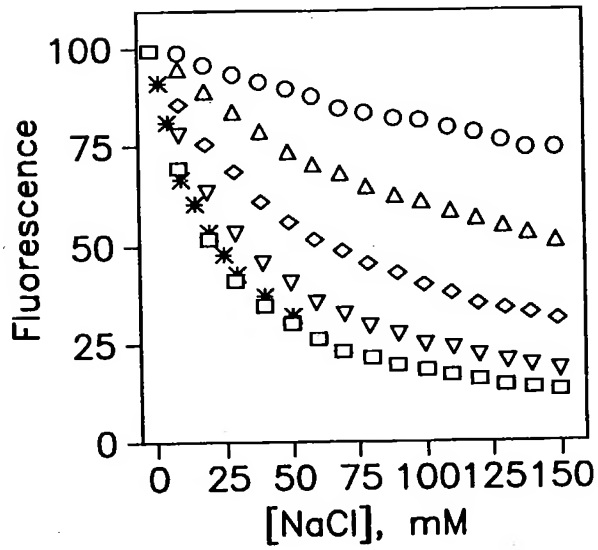
Fluorescence
100
75
50
25
0
0 25 50 75 100125150
[NaCl], mM

FIG. 8B

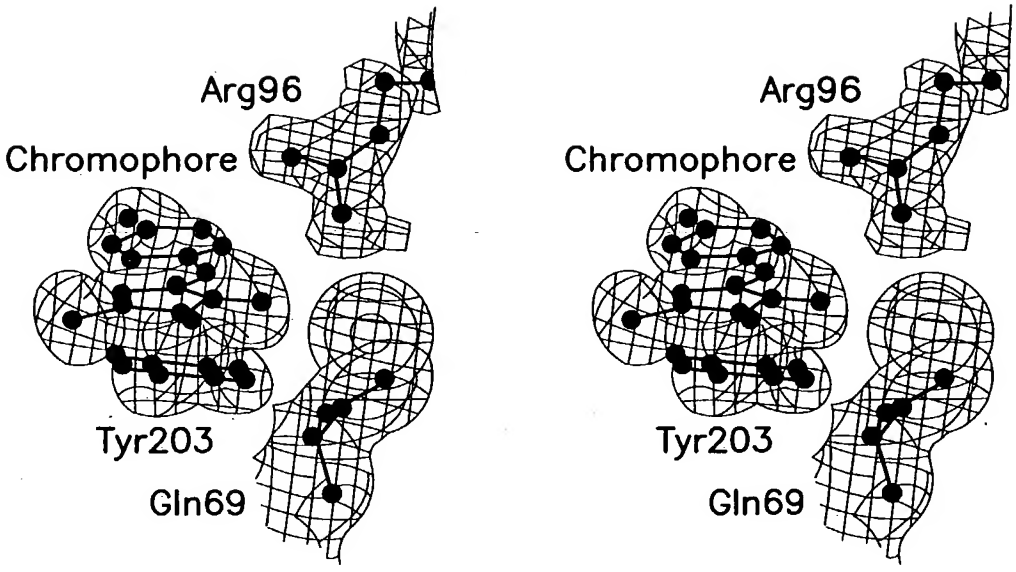
Arg96
Chromophore
Tyr203
Gln69
Arg96
Chromophore
Tyr203
Gln69

FIG. 9

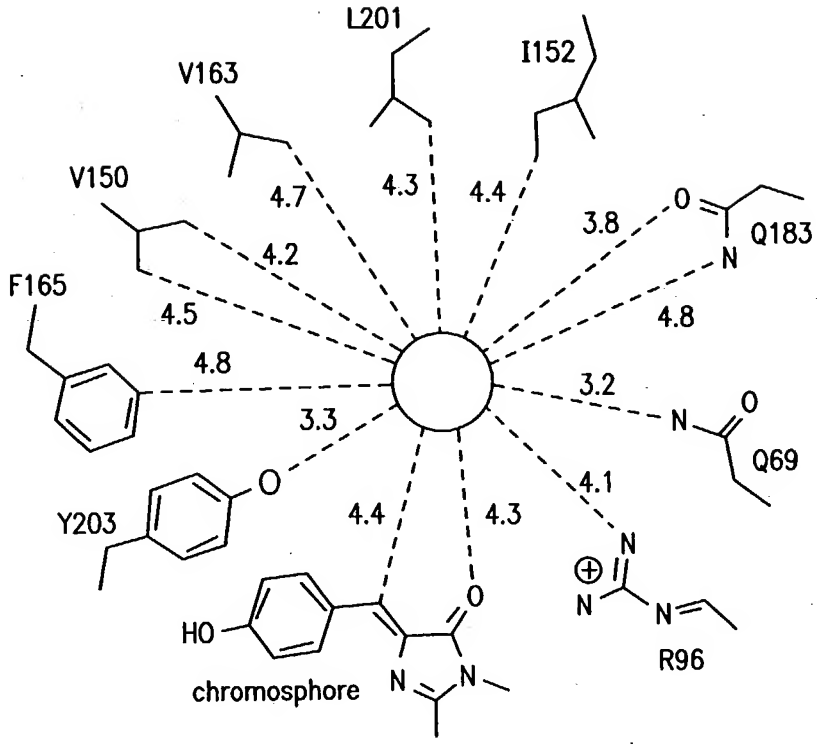
L201
I152
V163
V150
4.7
4.3
4.4
3.8
O
Q183
N
4.2
F165
4.5
4.8
4.8
3.2
N
O
Q69
3.3
O
4.1
Y203
4.4
4.3
N
O
HO
N
N
R96
chromosphore
N
N

FIG. 10

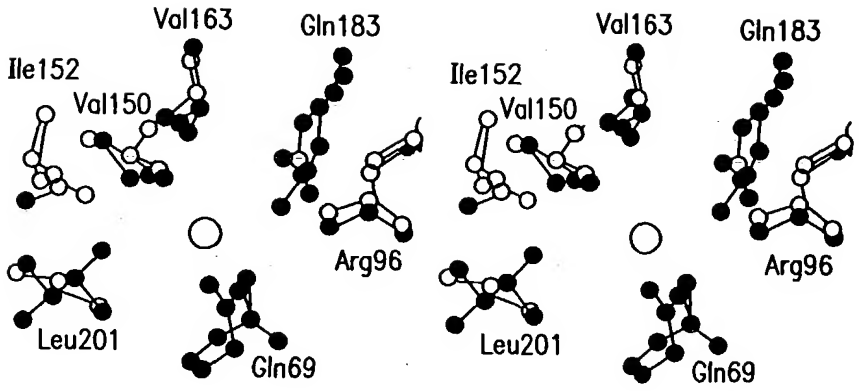
Val163
Gln183
Ile152
Val150
Arg96
Leu201
Gln69
Val163
Gln183
Ile152
Val150
Arg96
Leu201
Gln69

FIG. 11

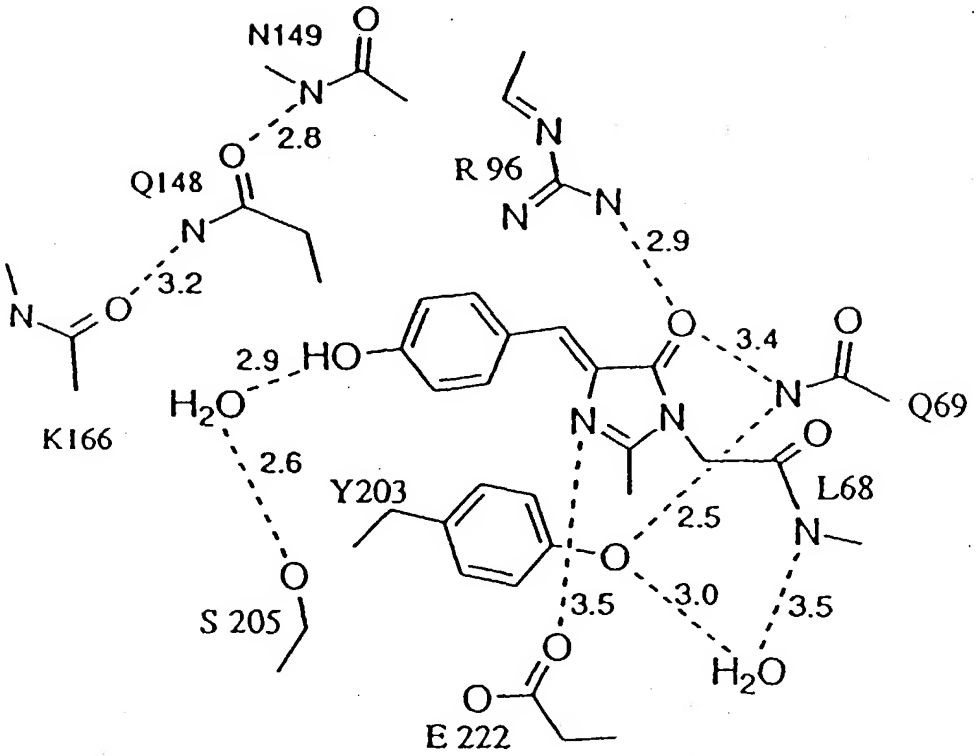

FIG. 12A

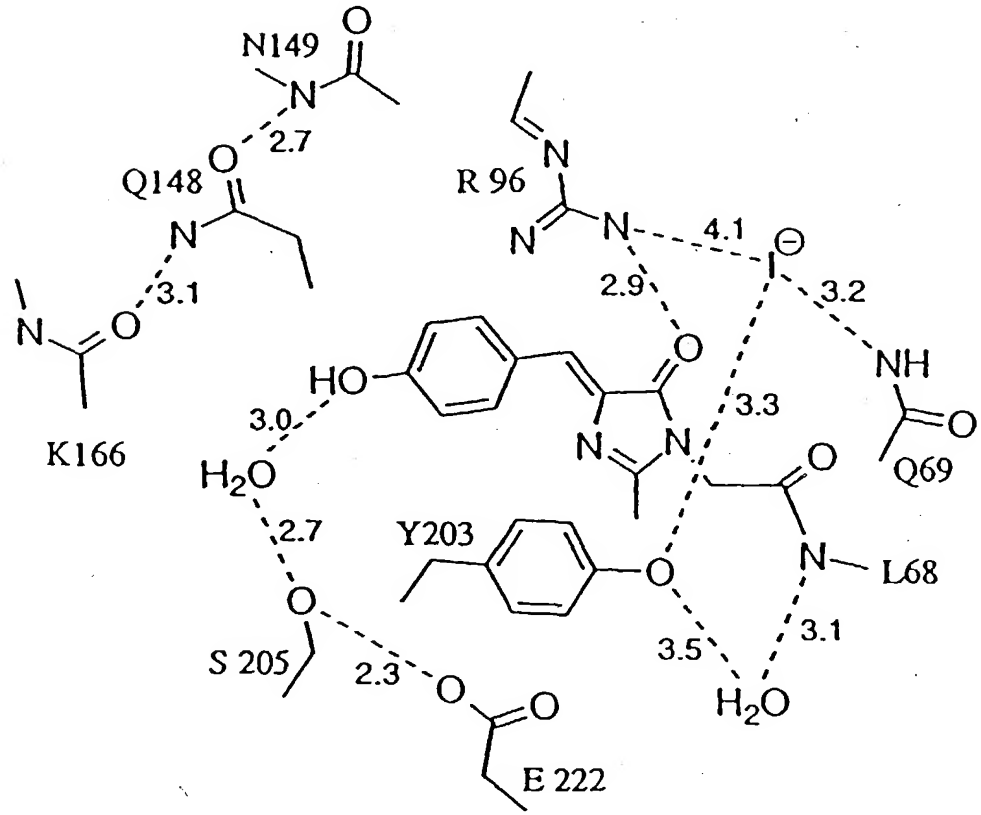

FIG. 12B

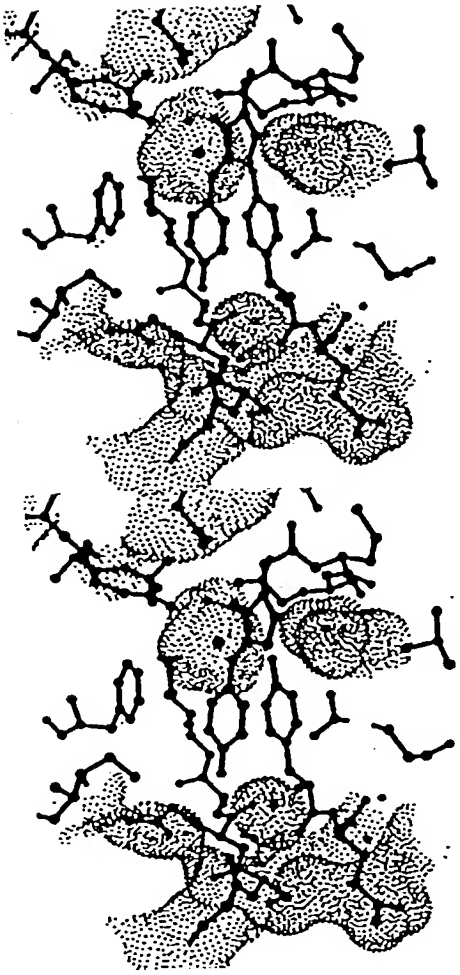

FIG. 13

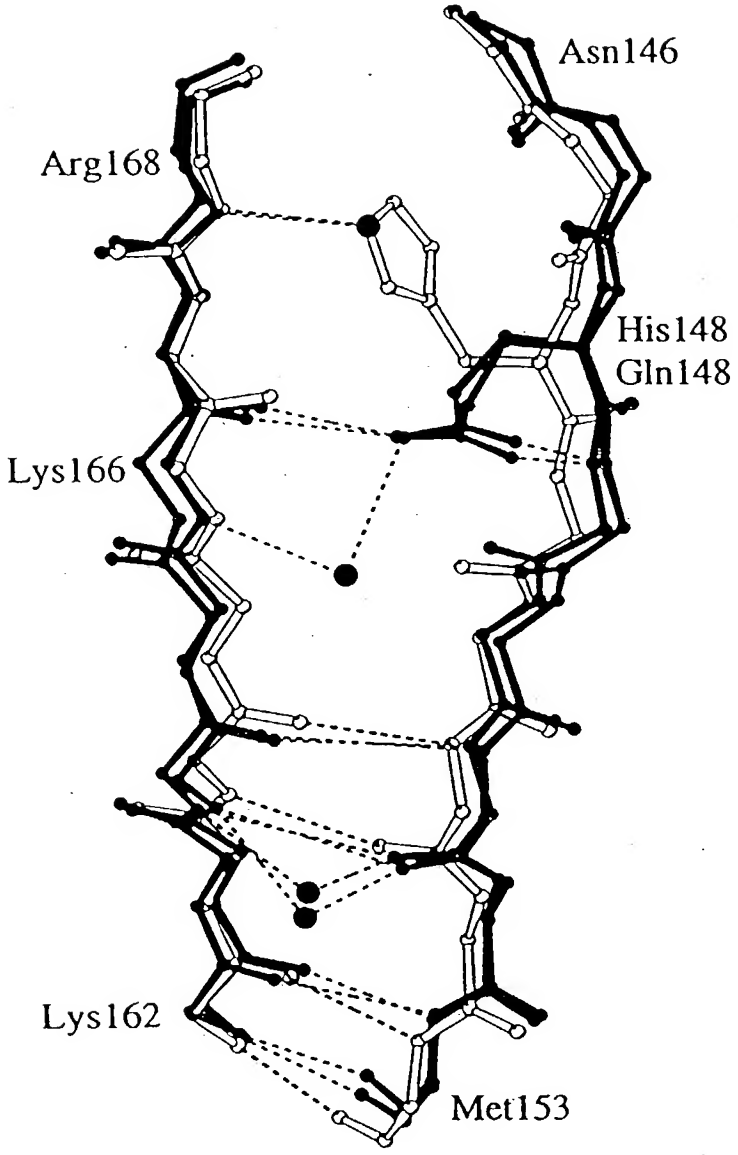

FIG. 14

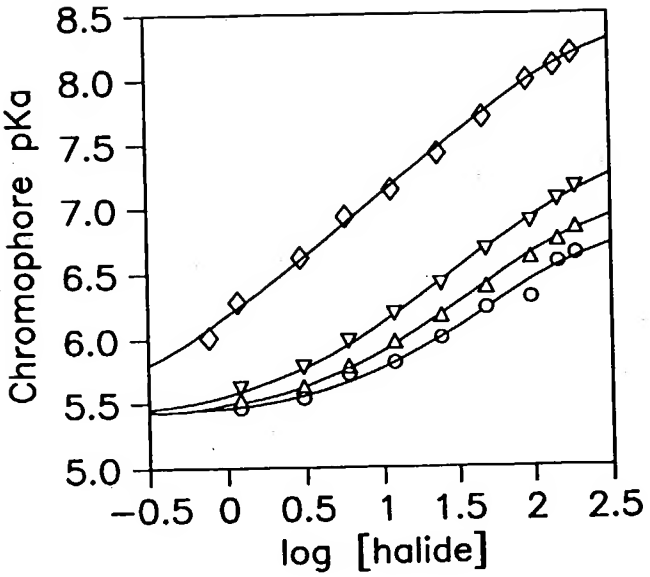
8.5
8.0
7.5
7.0
6.5
6.0
5.5
5.0
Chromophore pKa
−0.5
0
0.5
1
1.5
2
2.5
log [halide]

FIG. 15